4-29-2018

Excel Technique Workshop

Kendall Newcomer
knewcom@bgsu.edu

Excel Technique Workshop

Kendall Newcomer

Honors Project

Submitted to the Honors College
At Bowling Green State University in partial fulfillment of the
Requirements for graduation with

University Honors May of 2019

Mearl Sutton—Marketing, Advisor

Heidi Coughlin—Business Communications, Advisor

Research Questions

Today's society consists of a huge technology gap. With growing technology, many community members and people within the work place are being left behind while technology is taking off. A part of this technology is Microsoft Excel. Microsoft Excel was launched in the year 1985 (Jelen). Since then, almost every year has come with updates and new editions to this spreadsheet program, leaving new users of Excel behind on fully utilizing the functions of Microsoft Excel. Through this applied research project, the importance of Excel in the work place and everyday life will be identified, along with basic Excel skills every potential user should know. There is an obvious gap in where some community members are and where they should be. The goal of this research project is to narrow this gap and, as a result opens the door for research on many questions. The specific research questions that will be addressed in this project are the following:

- Why is Excel important in both everyday life and the work place?
- What are classified as basic Excel skills?
- Who is the target market for the benefits that will come from this project?
- What is the current state of the target market and the ideal state of the target market relative to Excel skills?
- Will the proposed activity lead to an increase of knowledge with Microsoft Excel?

Research Questions Answered

Why is Microsoft Excel important in both everyday life and the work place?

Microsoft Excel can be applied to various activities involving everyday life and the workplace. This spreadsheet software is used vastly in activities relating to financial planning

and organization of data. It aides in planning, organizing, financial tracking, and even statistical analysis ("What is Excel Used For?"). These activities are done by anyone, including students and professionals. Students and professionals are not the only ones who can find use of Microsoft Excel. Everyday budgeting and organization of data can be done through this program. During this Honors Project, the goal is to reach out to members of the community that could utilize Microsoft Excel in their everyday life. The target market could then apply their knowledge of Microsoft Excel to their professional lives as well.

Daily and business uses of Excel include: easy arithmetic solutions, formatting options, availability of online data, charts for analysis, bringing all the data in one place, and human resource planning ("Importance of MS Excel in our Daily & Business Lives"). With a spreadsheet containing over 1,048,576 rows and 16,384 columns, all of these activities are possible. Business documents, personal documents, and scientific data are all possible to enhance while utilizing Excel. Business documents include financial statements, expense reports, invoices, and earnings statements. These files are easy to transfer from employee to employee at a business. Personal documents include weekly budgets, catalogs of certain collections, shopping lists, and exercise plans. Like everything in life, these activities are likely to be ever changing. Microsoft Excel makes it possible to update these documents efficiently and effectively. Scientific data includes experimental observations, models, and medical charts. A lot of people are capable of collecting data, but Microsoft Excel makes it possible to analysis this data in various ways (McDonald).

Some people are visual learners. Microsoft Excel can provide this way of learning. Excel offers various charts and graphs to increase the understanding of the data provided in the worksheet. The charts offered by Excel include column charts, line graphs, pie charts, bar

graphs, area graphs, scatter plots and many more. Each data set can be seen in each of these graphs, depending on what type of data the user has. Excel also provides recommended charts and graphs to make the users experience even better. Each type of chart or graph has different versions to compare data and make the information easier to understand.

Many workplaces require potential employees to have previous Excel experience. In this series of workshops, I hope to provide a learning experience for Excel users of all levels. Excel makes it possible to complete calculations without being a mathematician or statistician. This workshop will benefit people in both their everyday life and their professional life.

What are classified as basic or intermediate Microsoft Excel skills?

The workshop being created is targeted towards Microsoft Excel users of all skill levels. The selected target market is McComb community members over the age of 35. Because of this target market, the average expected attendee will either be at the beginner level or the intermediate level.

Some beginner Excel skills include the following:

Sum Function: The sum function is one of the most common function used in Excel. There are multiple ways to apply this function to a worksheet. The use of this function is to simply add up numbers in a specified row/column. This is great for tracking spending or adding up how many of something there is within a spreadsheet. This function also has a more advanced form which is called sumif. Sumif allows users to total up items that meet certain requirements.

Count Function: Although each row is labeled, the data does not always start at the beginning of the spreadsheet. The count function makes it possible to track how many of each line item

there are. Like the sum function, the count function also has a more advanced form which is called countif. This function also counts line items that meet certain requirements.

Building a Table: Building data into a table is one of the best ways to organize data that is put into Excel in a visual fashion. Tables make it possible to sort through data without mixing any of it up. There are options to put categorical data in alphabetical order, both ascending and descending. It also allows you to pick in choose which items users want to see and hides the rest, but does not completely get rid of it. The table also allows users to sort numerical data in both ascending and descending order. There are multiple table formats to make the data visually appealing.

Absolute/Relative References: Normal excel functions change with the relative position of the cells in the function. Absolute and relative references make functions include the cells the user would specifically like. F4 and position of the dollar sign in the function is how to use relative and absolute references.

Min/Max/Average function: These three functions are very common when analyzing data. They are also easy to use in multiple ways. Like the sum and count function, there is also a more advanced version of the average function. Averageif allows users to compute an average based on a specific set of conditions.

Creating a Chart: Creating a chart was mentioned in the "Why is Microsoft Excel important in both everyday life and the work place?" section. Charts and graphs are a great way to make data easy to see and compare. Specific charts and graphs include bar charts, pie charts, scatter plots, and many more. Microsoft Excel allows users to edit the data being pulled into the chart and design the chart in many ways. The format, font, axis titles, and colors used are all things that can be changed when using the chart features of Microsoft Excel.

Changing Font: All of the fonts that are offered on Microsoft Word are also offered on Microsoft Excel. This is just another way to make data look more appealing to users.

Changing Format of Numbers: Depending on the type of data, the number format is something that can be changed to fit the data. For example, if using dollar amounts, there are formats named "currency" or "accounting". Number formats enhances the use of the document, allowing users to understand more of the data quicker. Other formats include general, number, short date, long date, time, percentage, fraction, scientific, text, and many more.

Some intermediate Excel skills include the following:

Conditional Formatting: Conditional formatting can be used for a variety of activities. The main purpose of conditional formatting is to make the data easier to read and get information from. There are premade conditional formatting rules and the option to create a new rule. Some premade rules include data bars, color scales, icon sets, highlight cell rules, and top/bottom rules. The highlight cell rules make certain cells stand out from others. For example, the data sheet can be formatted in a way that any number greater than a value is green, or any number that falls between a certain ranger are highlighted in green. The top/bottom rules allow users to highlight the top ten percent or the bottom ten percent of the data.

Statistical Calculations: Within excel, there are various formulas that can be used for statistical calculations. Some of these include calculating the probability in binomial and normal distributions. These are especially helpful when analyzing data and studying statistics.

Pivot Tables: Pivot tables are a more advanced way of formatting data into a table. The pivot table lets users format the table in various ways. These tables make it easier to organize large

amounts of data quickly. The user can determine which information is seen in the table and how it appears. Pivot tables are ever changing and can be reorganized at any time.

Throughout the workshop being planned, the skills previously listed will be included in the workshops. Even though there are a lot of skills mentioned above, there are still many other basic, intermediate, and advanced uses of Excel. Some advanced uses of Microsoft Excel involving using add-ins such as solver and data analysis. These are skills that are taught in advanced Excel or Statistics classes. Another advanced use within Microsoft Excel is the use of Macros. These are all things that make Microsoft Excel even more beneficial for users.

Who is the target market for the benefits that will come from this project?

This workshop is being directed at a very specific group of people. To answer this question, I used market segmentation and target marketing to identify the correct group of people to market to.

Segmentation

Geographic: McComb, Ohio and the surrounding areas. This is a rural area. The McComb Library is where the workshop will be located, so members of the McComb community will be the easiest market to reach.

Behavioral: The benefits sought by the attendees of this workshop would be to approve upon their Excel skills. This requires that the people attending the workshop would have use for Microsoft Excel in their lives. The usage rate of the workshop would have a maximum of three, because there will be three workshops offered.

Demographic: The target market age will be adults 35 and older. Both genders will be targeted and the target market will not depend on education level, income, occupation, religion, or ethnicity.

Psychographic: The target market's lifestyle will be one that involves computer use in either daily tasks or professional tasks.

Based on these segmentation descriptions, the target market is measurable, accessible, substantial, differentiable, and actionable. These are all requirements for effective segmentation. Measureable means the size and profile of the segments. In this case, the goal for the workshop is 20 individuals each meeting time. Accessible means whether or not the target market can be reached effectively. In this case, the answer is yes. The McComb Public Library is located at the center of town. This means that people are in and out of it every day. We will access the target market by word of mouth and the posting of flyers at the most visited places in McComb (see appendix 1). Substantial means whether or not the target market is large enough. McComb, Ohio is a small community with around 1,600 people living in it. Although it is a small community, 20 people is a goal that will be easily obtained. Differentiable is the ability to distinguish and respond different to marketing elements. The target market will be easy to reach and will react to the actions that will be taken to attract them to this workshop. That also ties into actionable, which is whether or not the program is effective and will attract the right segments.

What is the current state of the target market and the ideal state of the target market relative to Excel skills?

The current state of the target market is most likely at the beginner level or perhaps even less than that. Because of this, the workshop will be targeted towards the beginner skill level.

The current state of the target market will be measured with a pretest that is offered during the first workshop. More information about the pretest will be given in the proposed activity section of this report.

The ideal state of the target market is to arrive at the intermediate level. Listed earlier in this report were both beginner and intermediate skills of Microsoft Excel. At the end of this workshop, attendees should be able to complete each of the skills listed in that section. The state of attendees after the workshop will be measured in a posttest that is very similar to the pretest given in the first workshop.

Will the proposed activity lead to an increase of knowledge with Microsoft Excel?

The success of the proposed activity will be measured by the pretests and posttests given in the first and last workshop. More of this information will be described in the actual results section of this report.

Proposed Activity

Many past researches have researched the importance of Microsoft Excel and researched the most common uses of Excel. Applying this research and developing a program that teaches the basics and uses of Excel will be beneficial to community members who have access to the program. The general outline of this program will consist of a pretest, three workshop classes, a posttest, and handouts that will serve as reference guides when using Excel in the future. The workshop will be held at the McComb Public Library, once per week, for three weeks. Through the proposed activity, the last two research questions will be addressed.

Identifying the target market is the first step in this activity. The market being targeted with this activity are the community members of McComb, Ohio over the age of 35. The target market was selected because of the difference in education systems. The teaching of Excel in schools, especially McComb Local Schools, is a new addition to the curriculum and is even an optional class. Because of this, many members of the target community never had an official teaching Microsoft Excel within their high school education. At Bowling Green State University, all business students go through an introduction to information systems course, which covers the basics of Excel. People with degrees other than business did not have the opportunity to take a course like this. This is why the need of a community course on the basics of Microsoft Excel is needed within the community of McComb, Ohio.

To test the current knowledge of the target market, a pretest will be given to them in the first workshop. This pretest will be created with the various sources cited for this project. It will encompass the functions of Excel that will be covered in the workshops. This will not only provide data to answer this research question, but will gauge where the community members attending the workshop are at with their Excel skills. These pretests will then be compared to the posttest to gauge the success of the workshop and the information taught.

Methodology

In preparation of the pretest, handout, and posttest, the first two research questions ("Why is Excel important in both everyday life and the work place?" and "What are classified as basic Excel skills?") will be answered. These three documents will include the basic, most important function and uses within Microsoft Excel. The proposed activity will be separated into three workshops. The target market has been identified through this proposal: community members of McComb, Ohio ages 35 and up in need of furthering their Excel skills. By having both the

pretest and the posttest, research question, “What is the current state of the target market and the ideal state of the target market when it comes to Excel skills?”, will be answered by the time the workshops are completed. The ultimate goal of this project is to increase the knowledge and utilization of Excel within this community. After analyzing the data produced by the pretest and comparing the data produced by the posttest, the answer to the last research question (“Will the proposed activity lead to an increase of knowledge within Microsoft Excel?”) will be answered, statistically speaking. If this workshop ends up being successful, this program may be expanded into other communities.

A potential challenge that will need to be overcome is ensuring attendance to the workshop. To ensure a sufficient amount of people attend these workshops, I will be working closely with the McComb Public Library to market the program being offer starting as soon as the official date is decided. It is also a challenge to have community members that are all at the same level of Excel skill. Because of this, the workshop will have to be set up in a way that shows step-by-step instructions of each function being taught. The last challenge is some community members will only be able to make it to one or two workshops, not all of them. In developing the workshop information, this will have to be taken into consideration.

Workshop 1 will begin with a survey. This survey can be seen in appendix 2. Questions that will be included are the following: What is your occupation?, Have you ever taken an Excel class before?, What are some reasons you want to learn Excel? Are there specific task you want to simplify with Excel?, Is there anything specific you would like to learn about Excel throughout these workshops?, On a scale 1-10, how would you rate your Excel skills before attending these workshops?.

Also included in workshop 1 will be the pretest. The pretest will include a data set and specific questions. The pretest file is included in appendix 3. The skills the pretest incorporates include:

- Formatting data into a table
- Creating simple formulas such as multiplication and subtraction
- Sorting data in various ways
- Conditional formatting
- Sum, Average, Minimum, and Maximum functions
- Inserting/Deleting Columns/Rows
- Adding subtotals to tables
- Creating a bar chart

After the survey and the pretest, the first lesson will be given. The first lesson will include formatting font, inserting/deleting columns/rows, functions such as average, minimum, maximum and sum, formatting a table, adding subtotals, and some conditional formatting tools. During the lesson, a handout will be given to each attendee. This handout will show step by step instructions for each of the skills covered in the lesson. This handout will be Power Point slides and can be found in appendix 4.

Workshop 2 will be completely dedicated to learning new skills. There will be no surveys or assessments given. This workshop will include more table formatting skills, more conditional formatting skills, and anything that attendees mentioned in the initial survey. This will ensure that the attendees are benefiting from this workshop in a way that they see best. This workshop will also come with a handout that show step by step instructions on how to complete each item covered. The handout for this workshop can be found in appendix 5. As shown in the handout, the second workshop will be dedicated to creating a household budget. When talking to the

students in the first workshop, many of them would like to find a way to apply Microsoft Excel to their home life. The best way to do this was with a household budget. Each student will start with a blank spreadsheet. The step-by-step instructions provided in the second workshop will walk the students through a complete budget. This process will use formatting skills, formulas, and the creation of a pie chart. These are all uses of Microsoft Excel that were tested in the pretest.

Workshop 3 will be dedicated to formulas, tables, conditional formatting and creating an online check book register. The specific formulas covered in this lesson will include sum, average, count, minimum and maximum. Using these formulas will allow students to develop an understanding of how they work. The students at this workshop will also learn how to format data into a table. To see more details of Workshop 3 through the handout for this workshop, view appendix 6. All of the workshops help students get familiar with the uses of Microsoft Excel. The main way to learn skills is to practice them. These workshops provide students with that opportunity.

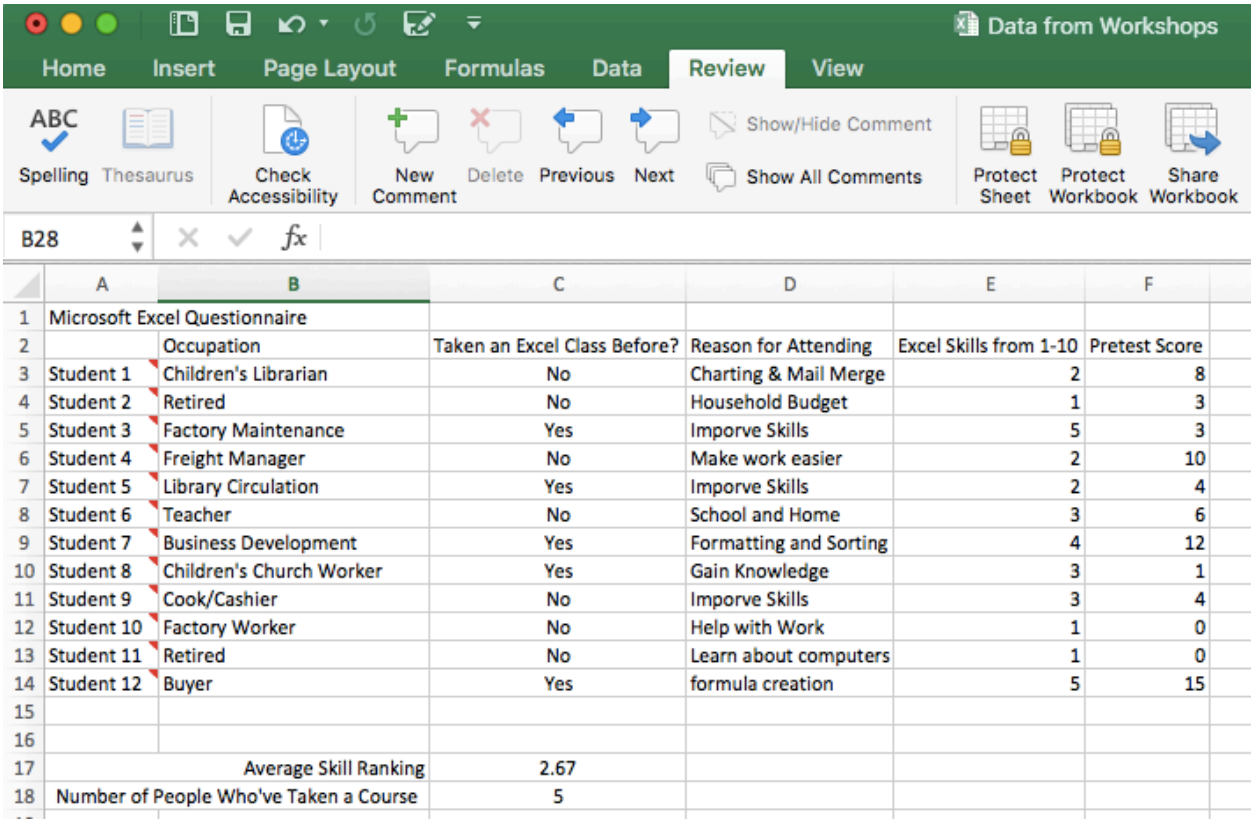
Expected Results

The expected results of this proposed activity is to have community members that know how to better apply Microsoft Excel to both their personal lives and their professional lives. The results will be measured by the outcome of the pretest versus the outcome of the posttest. Having a better educated community leads to a more productive society. Applying this research to the creation of these workshops allows the community of McComb to have a better educated community. Another potential outcome of this workshop is bringing a community closer together.

Upon success of this workshop, there are possibilities to expand the workshop to other communities around the immediate area. The target market will increase its knowledge of Excel and be capable of simplifying everyday statistical, financial, and organizational tasks.

Actual Results

The results from the first workshops survey are shown in the image below:

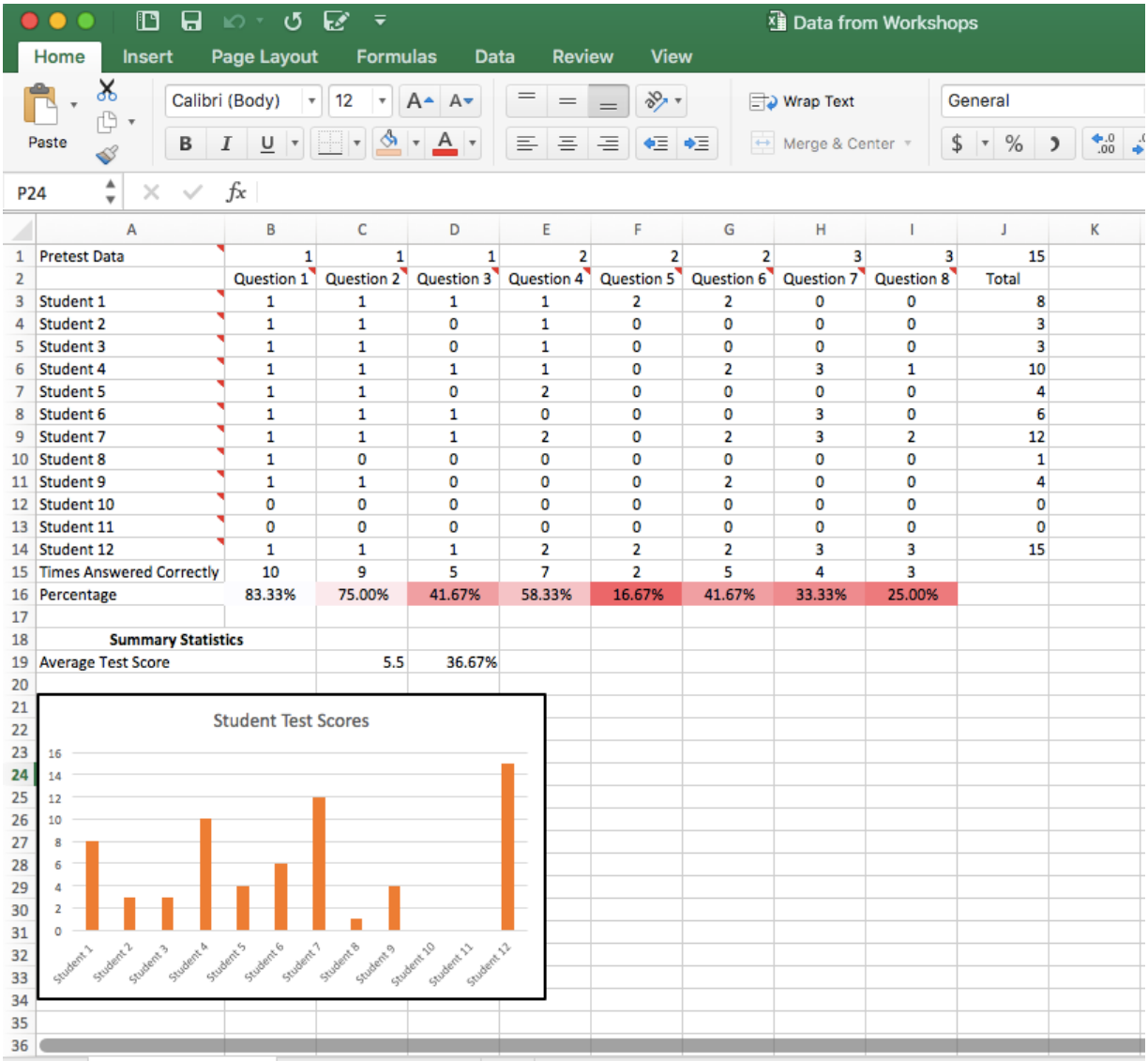


	A	B	C	D	E	F
1	Microsoft Excel Questionnaire					
2		Occupation	Taken an Excel Class Before?	Reason for Attending	Excel Skills from 1-10	Pretest Score
3	Student 1	Children's Librarian	No	Charting & Mail Merge	2	8
4	Student 2	Retired	No	Household Budget	1	3
5	Student 3	Factory Maintenance	Yes	Imporve Skills	5	3
6	Student 4	Freight Manager	No	Make work easier	2	10
7	Student 5	Library Circulation	Yes	Imporve Skills	2	4
8	Student 6	Teacher	No	School and Home	3	6
9	Student 7	Business Development	Yes	Formatting and Sorting	4	12
10	Student 8	Children's Church Worker	Yes	Gain Knowledge	3	1
11	Student 9	Cook/Cashier	No	Imporve Skills	3	4
12	Student 10	Factory Worker	No	Help with Work	1	0
13	Student 11	Retired	No	Learn about computers	1	0
14	Student 12	Buyer	Yes	formula creation	5	15
15						
16						
17		Average Skill Ranking	2.67			
18	Number of People Who've Taken a Course		5			

Many of the students that attended the first workshop have not taken a Microsoft Excel course before. There were 12 students who attended the first workshop. They each had different occupations and were a variety of ages. Microsoft Excel can be easily applied to each of these occupations in order to increase effectiveness and efficiency of the job being completed. Each participant listed a different reason for attending the workshops. As stated previously, this survey

was given at the beginning of the first workshop. This data was then used to formulate the lesson plans for the following two workshops. Another question that was given on the survey was for the students to rank there current Microsoft Excel skills on a scale from 1-10, 1 being the lowest and 10 being the highest. The average ranking from the 12 attendees was a 2.67. This shows the need for this Excel Workshop in the McComb Community.

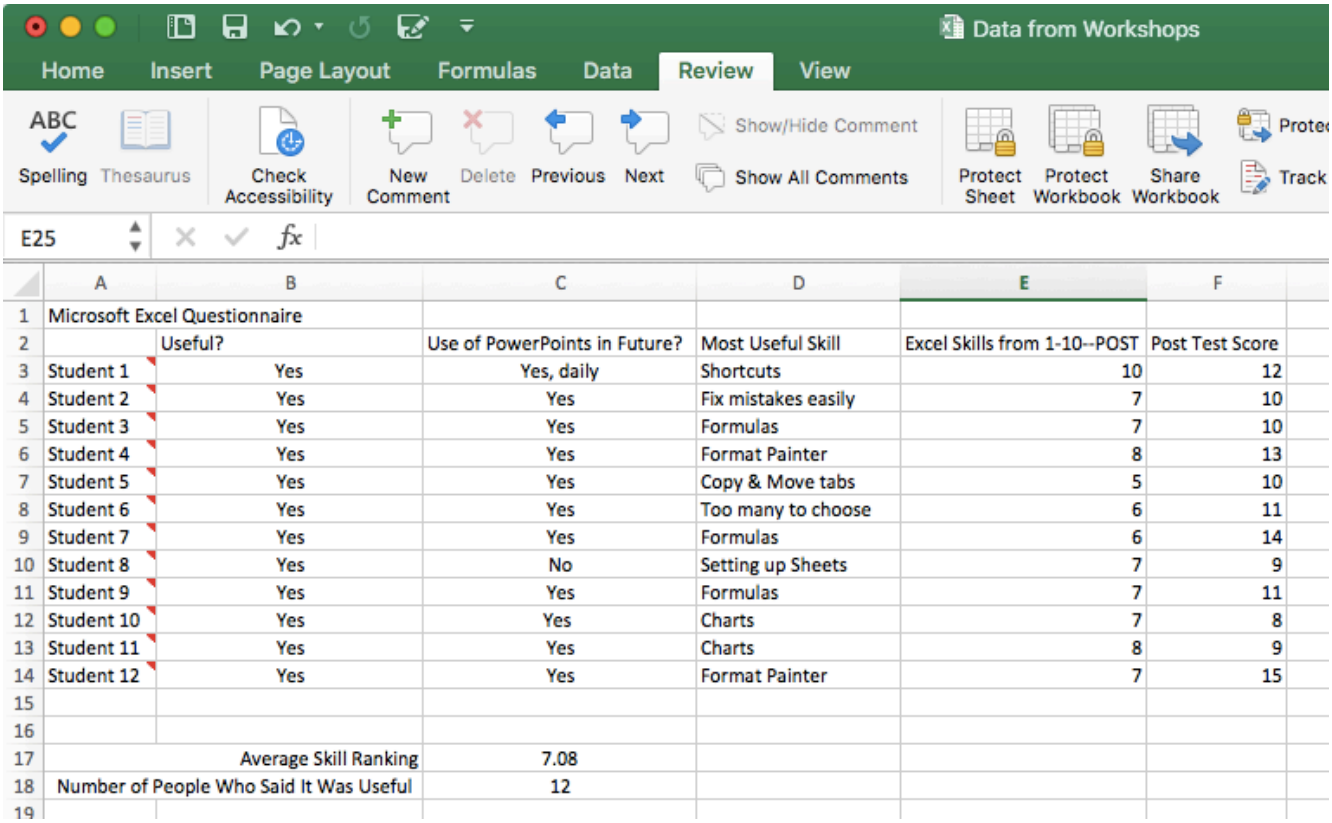
Along with a survey, a pretest was given at the first workshop. The results of the pretest are shown in the image below:



	A	B	C	D	E	F	G	H	I	J	K
1	Pretest Data	1	1	1	2	2	2	3	3	15	
2		Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Total	
3	Student 1	1	1	1	1	2	2	0	0	8	
4	Student 2	1	1	0	1	0	0	0	0	3	
5	Student 3	1	1	0	1	0	0	0	0	3	
6	Student 4	1	1	1	1	0	2	3	1	10	
7	Student 5	1	1	0	2	0	0	0	0	4	
8	Student 6	1	1	1	0	0	0	3	0	6	
9	Student 7	1	1	1	2	0	2	3	2	12	
10	Student 8	1	0	0	0	0	0	0	0	1	
11	Student 9	1	1	0	0	0	2	0	0	4	
12	Student 10	0	0	0	0	0	0	0	0	0	
13	Student 11	0	0	0	0	0	0	0	0	0	
14	Student 12	1	1	1	2	2	2	3	3	15	
15	Times Answered Correctly	10	9	5	7	2	5	4	3		
16	Percentage	83.33%	75.00%	41.67%	58.33%	16.67%	41.67%	33.33%	25.00%		
17											
18	**Summary Statistics**										
19	Average Test Score		5.5	36.67%							
20											

To see the questions on the pretest, view appendix 3. The average score on the pretest was a 36.67%. The low score was a 0/15 while the high score was a 15/15. The most missed question involved the use of functions such as the minimum, maximum, and average. Another question that was commonly missed was the creation of a bar graph. This knowledge was inputted into the development of Workshop 2, as well as the knowledge gained from the survey.

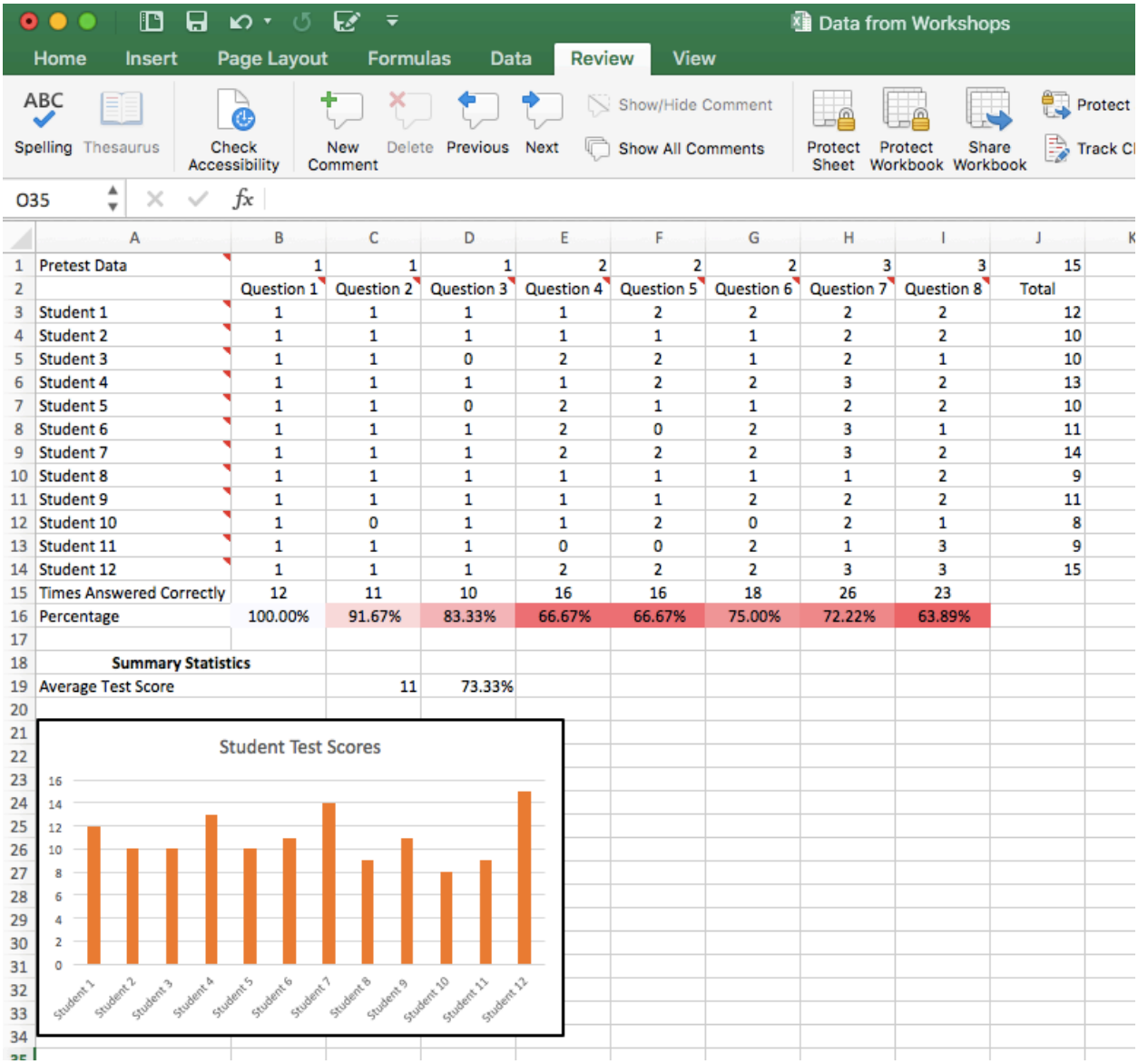
Each workshop was very successful. There were 12 students that attended all three workshops. Since this was a moderate number of students, the class was very hands on when it came to the instruction of the course. At the third and final workshop, an ending survey and a posttest were given. Below are the results from the ending survey:



	A	B	C	D	E	F
1	Microsoft Excel Questionnaire					
2		Useful?	Use of PowerPoints in Future?	Most Useful Skill	Excel Skills from 1-10--POST	Post Test Score
3	Student 1	Yes	Yes, daily	Shortcuts	10	12
4	Student 2	Yes	Yes	Fix mistakes easily	7	10
5	Student 3	Yes	Yes	Formulas	7	10
6	Student 4	Yes	Yes	Format Painter	8	13
7	Student 5	Yes	Yes	Copy & Move tabs	5	10
8	Student 6	Yes	Yes	Too many to choose	6	11
9	Student 7	Yes	Yes	Formulas	6	14
10	Student 8	Yes	No	Setting up Sheets	7	9
11	Student 9	Yes	Yes	Formulas	7	11
12	Student 10	Yes	Yes	Charts	7	8
13	Student 11	Yes	Yes	Charts	8	9
14	Student 12	Yes	Yes	Format Painter	7	15
15						
16						
17		Average Skill Ranking	7.08			
18	Number of People Who Said It Was Useful		12			
19						

Every student who attended all three workshops said that the workshop was useful. Eleven of the twelve students said that they would likely use the PowerPoint slide handouts in the future. Some of the most useful skills learned are formulas, charts, and format painter. On a scale 1-10, with 1 being the worst, the average skill ranking was 7.08 at the end of the workshops. The average skill ranking before the workshops was 2.67. This shows a significant increase of confidence with the use of Excel.

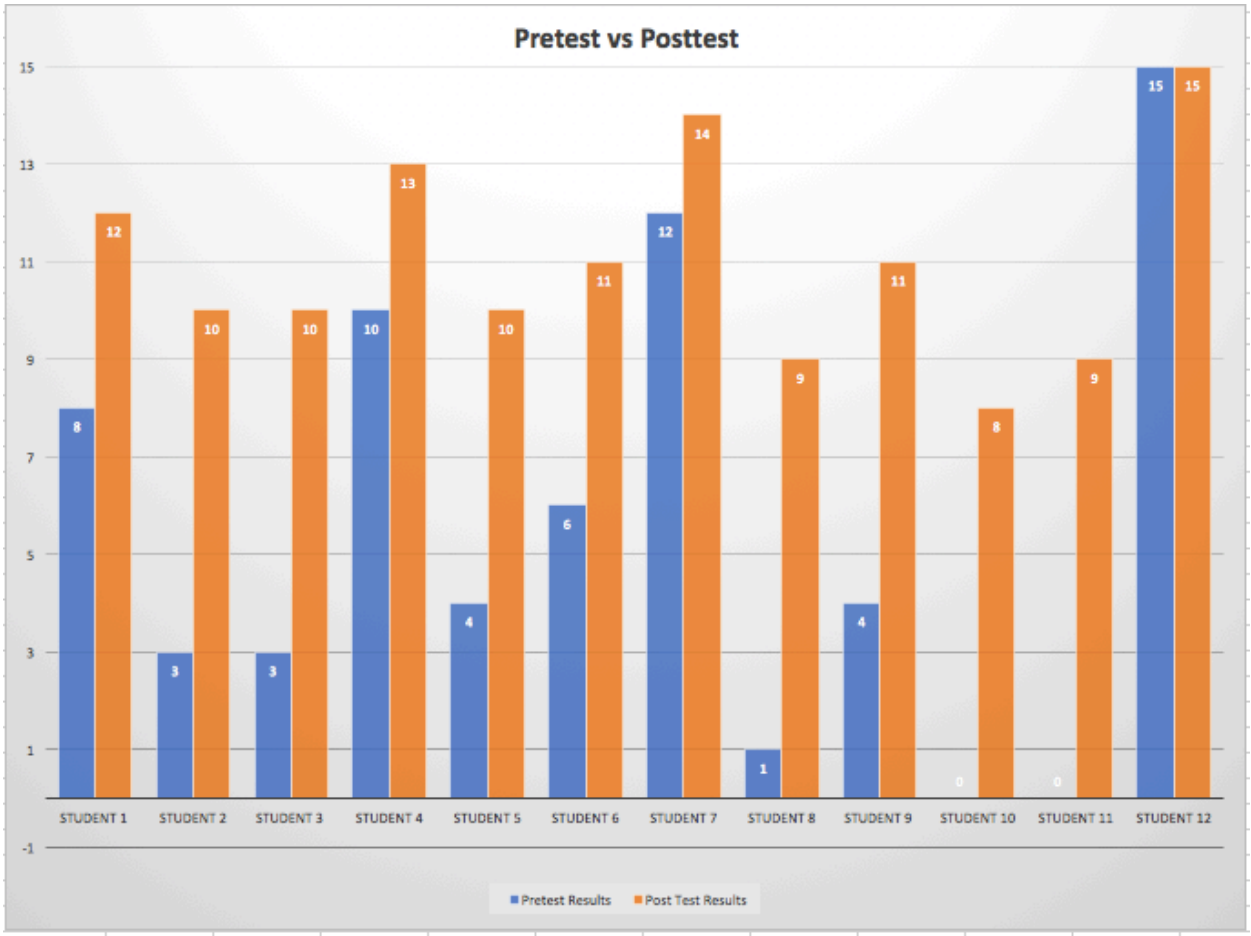
Along with the survey, a post test was given to the students at the final workshop. Data from this posttest is shown in the image below:



	A	B	C	D	E	F	G	H	I	J
1	Pretest Data	1	1	1	2	2	2	3	3	15
2		Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Total
3	Student 1	1	1	1	1	2	2	2	2	12
4	Student 2	1	1	1	1	1	1	2	2	10
5	Student 3	1	1	0	2	2	1	2	1	10
6	Student 4	1	1	1	1	2	2	3	2	13
7	Student 5	1	1	0	2	1	1	2	2	10
8	Student 6	1	1	1	2	0	2	3	1	11
9	Student 7	1	1	1	2	2	2	3	2	14
10	Student 8	1	1	1	1	1	1	1	2	9
11	Student 9	1	1	1	1	1	2	2	2	11
12	Student 10	1	0	1	1	2	0	2	1	8
13	Student 11	1	1	1	0	0	2	1	3	9
14	Student 12	1	1	1	2	2	2	3	3	15
15	Times Answered Correctly	12	11	10	16	16	18	26	23	
16	Percentage	100.00%	91.67%	83.33%	66.67%	66.67%	75.00%	72.22%	63.89%	
17										
18	**Summary Statistics**									
19	Average Test Score		11	73.33%						

The questions of the posttest were identical to the pretest. To see the questions asked, review appendix 3. The average score on the posttest was a 73.33%. This is an increase of 36.66% compared to the pretest average score. The low score was an 8/15 while the highest score was a 15/15. These improvements from the pretest proves that the workshop was useful to each student. All the students benefited in some way from this course. All the scores from the pretest to the posttest increased.

The image below is a graphical representation of the improvement of scores on the pretest versus the posttest for each student. As you can see, every student in attendance was able to achieve a better score on the posttest when compared to the pretest.



Conclusion

Overall, the implementation of this Honors Project was successful. Giving back to my community in a way that I could apply my education was a great opportunity. The development of this honors project was done in a way in which these workshops can be implemented at other locations or at the McComb Public Library at a different time. I have made plans with the McComb Public Library in the fall to hold another class for the community members who could not attend the previous workshops.

Works Cited

Brown, Liza. *20 Tricks That Can Make Anyone An Excel Expert*. 2010. 27 November 2017.

Carlberg, Conrad George. *Que Publishing*. 2004. 27 November 2017.

Edulink, Global. *Global Edulink*. 2016. 27 November 2017.

Eldredge, David L. *An Excel Companion for Business Statistics*. South-Western College Publishing, 1999.

Goodwill Community Foundation. *Excel Formulas*. 2017. GCF LearnFree. 10 November 2017.

Graves, Sheri. *Importance of Excel In The Workplace*. 2007. 5 December 2017.

Harvey, Greg. *Excel 2016 for Dummies*. 2016. 10 December 2017.

Jelen, Bill. *Charts and Graphs: Microsoft Excel 2010*. Que Publishing, 2011.

Lin, Eugenia. *7 Popular Business Uses for Microsoft Excel*. 2016. 10 November 2017.

MacDonald, Matthew. *Excel 2013: The Missing Manual*. O'Reilly Media, Inc., 2013.

McFedries, Paul. *Formulas and functions with Microsoft Excel 2003*. Que Publishing, 2005.

Morgado, Flavio. *Programming Excel with VBA: A Practical Real-World Guide*. Apress, 2016.

OpenGate Software. *What is Excel Used For?* 2017. 12 November 2017.

Primavera, Hiram E Fitzgerald and Judith. *ProQuest Ebook Central*. 2014. Michigan State University Press. 28 November 2017.

Ramachandram, Ragland and. *Towards an understanding of Excel functional skills needed for career in public accounting: Perceptions from public accountants and accounting students.* . Elsevier, 2014.

Rawlings-Sanaei, Felicity. *Learning Through Community Engagement: Educating the Global Citizen*. Singapore: Springer Science+Business Media, 2017.

Saltmarsh, John. *Learning Through Community Engagement: A Collaborative Turn*. Singapore: Springer Science+Business Media, 2017.

Sugden, John Baker and Stephen. *Spreadsheets in Education--The First 25 Years, Spreadsheets in Education*. Vol. 1. eJsiE, 2007.

McComb Public Library

Working with Spreadsheets

Introductory Spreadsheet/Excel Workshop
McComb Public Library
Thursday, April 5th, 12th, and 19th @ 7:00pm

Bowling Green State University Student, Kendall Newcomer, and Marathon Petroleum Corporation employee, Carol Miehls, will be holding a FREE 3-week workshop on the Thursday's evenings listed above. Please register through the McComb Public Library to guarantee your spot.

Improve your Microsoft Excel Skills!

This is an independent workshop and is neither affiliated with, nor authorized, sponsored, or approved by, Microsoft Corporation.

Microsoft Excel Questionnaire—Beginning

Name: _____

Phone Number: _____

Email Address: _____

1. What is your occupation?

_____

_____

_____

2. Have you ever taken an Excel class before?

_____

_____

_____

3. What are some reasons you want to learn Excel? Are there specific tasks you would like to simplify with Excel?

_____

_____

_____

4. Is there anything specific you would like to learn about Excel throughout these sessions?

_____

_____

_____

5. On a scale 1-10, how would you rate your Excel skills before attending these workshops?

1 2 3 4 5 6 7 8 9 10

Question 1: Make the above text bold.

Difficulty: 1

Microsoft Excel

Question 2: Center and middle align the text above.

Difficulty: 1

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
USA	Washington DC	38°53’N 77°01’W	3796742	325719178	61687
Mexico	Mexico City	19°26’N 99°08’W	761610	123675325	20028
Canada	Ottawa	45°24’N 75°40’W	3855100	35151728	49620
Venezuela	Caracas	10°30’N 66°55’W	353841	31568179	11722
Brazil	Brasília	15°47’S 47°52’W	3287956	208568000	15919
Uruguay	Montevideo	34°53’S 56°10’W	68037	3444006	23504
Costa Rica	San José	9°56’N 84°5’W	19700	4857274	17260
Haiti	Port-au-Prince	18°32’N 72°20’W	10710	10847334	1819
Dominican Republic	Santo Domingo	19°00’N 70°40’W	18655	10800857	17096
Bolivia	Sucre	17°48’S 63°10’W	424164	11217864	7870
Ecuador	Quito	00°9’S 78°21’W	109484	16385068	11788
Peru	Lima	12°2.6’S 77°1.7’W	496225	32553697	13341
Germany	Berlin	52°31’N 13°23’E	137903	82800000	50206
Italy	Rome	41°54’N 12°29’E	116347	60589445	36823
Spain	Madrid	40°26’N 3°42’W	195360	46354321	39944
Poland	Warsaw	52°13’N 21°02’E	120726	38422346	30827
Norway	Oslo	59°56’N 10°41’E	148728	5267146	72702
Finland	Helsinki	60°10’N 24°56’E	130666	5509717	45787
England	London	51°30’N 0°7’W	50301	55268100	37747
China	Beijing	39°55’N 116°23’E	3705407	1403500365	16624
Japan	Tokyo	35°41’N 139°46’E	145936	126672000	44246
India	New Delhi	28°36.8’N 77°12.5’E	1269219	1324171354	7749
Switzerland	Bern	46°57’N 7°27’E	15940	8401120	61360
Austria	Vienna	48°12’N 16°21’E	32386	8823054	49247
Russia	Moscow	55°45’N 37°37’E	6592800	144526636	28918

Question 3: Insert a column between the country names and the capital names.

Difficulty: 1

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
USA	Washington DC	38°53’N 77°01’W	3796742	325719178	61687
Mexico	Mexico City	19°26’N 99°08’W	761610	123675325	20028
Canada	Ottawa	45°24’N 75°40’W	3855100	35151728	49620
Venezuela	Caracas	10°30’N 66°55’W	353841	31568179	11722
Brazil	Brasília	15°47’S 47°52’W	3287956	208568000	15919
Uruguay	Montevideo	34°53’S 56°10’W	68037	3444006	23504
Costa Rica	San José	9°56’N 84°5’W	19700	4857274	17260
Haiti	Port-au-Prince	18°32’N 72°20’W	10710	10847334	1819
Dominican Republic	Santo Domingo	19°00’N 70°40’W	18655	10800857	17096
Bolivia	Sucre	17°48’S 63°10’W	424164	11217864	7870
Ecuador	Quito	00°9’S 78°21’W	109484	16385068	11788
Peru	Lima	12°2.6’S 77°1.7’W	496225	32553697	13341
Germany	Berlin	52°31’N 13°23’E	137903	82800000	50206
Italy	Rome	41°54’N 12°29’E	116347	60589445	36823
Spain	Madrid	40°26’N 3°42’W	195360	46354321	39944
Poland	Warsaw	52°13’N 21°02’E	120726	38422346	30827
Norway	Oslo	59°56’N 10°41’E	148728	5267146	72702
Finland	Helsinki	60°10’N 24°56’E	130666	5509717	45787
England	London	51°30’N 0°7’W	50301	55268100	37747
China	Beijing	39°55’N 116°23’E	3705407	1403500365	16624
Japan	Tokyo	35°41’N 139°46’E	145936	126672000	44246
India	New Delhi	28°36.8’N 77°12.5’E	1269219	1324171354	7749
Switzerland	Bern	46°57’N 7°27’E	15940	8401120	61360
Austria	Vienna	48°12’N 16°21’E	32386	8823054	49247
Russia	Moscow	55°45’N 37°37’E	6592800	144526636	28918

Question 4: Use the sum function to determine the total population of the countries listed above.

Difficulty: 2

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
USA	Washington DC	38°53′N 77°01′W	3796742	325719178	61687
Mexico	Mexico City	19°26′N 99°08′W	761610	123675325	20028
Canada	Ottawa	45°24′N 75°40′W	3855100	35151728	49620
Venezuela	Caracas	10°30′N 66°55′W	353841	31568179	11722
Brazil	Brasília	15°47′S 47°52′W	3287956	208568000	15919
Uruguay	Montevideo	34°53′S 56°10′W	68037	3444006	23504
Costa Rica	San José	9°56′N 84°5′W	19700	4857274	17260
Haiti	Port-au-Prince	18°32′N 72°20′W	10710	10847334	1819
Dominican Republic	Santo Domingo	19°00′N 70°40′W	18655	10800857	17096
Bolivia	Sucre	17°48′S 63°10′W	424164	11217864	7870
Ecuador	Quito	00°9′S 78°21′W	109484	16385068	11788
Peru	Lima	12°2.6′S 77°1.7′W	496225	32553697	13341
Germany	Berlin	52°31′N 13°23′E	137903	82800000	50206
Italy	Rome	41°54′N 12°29′E	116347	60589445	36823
Spain	Madrid	40°26′N 3°42′W	195360	46354321	39944
Poland	Warsaw	52°13′N 21°02′E	120726	38422346	30827
Norway	Oslo	59°56′N 10°41′E	148728	5267146	72702
Finland	Helsinki	60°10′N 24°56′E	130666	5509717	45787
England	London	51°30′N 0°7′W	50301	55268100	37747
China	Beijing	39°55′N 116°23′E	3705407	1403500365	16624
Japan	Tokyo	35°41′N 139°46′E	145936	126672000	44246
India	New Delhi	28°36.8′N 77°12.5′E	1269219	1324171354	7749
Switzerland	Bern	46°57′N 7°27′E	15940	8401120	61360
Austria	Vienna	48°12′N 16°21′E	32386	8823054	49247
Russia	Moscow	55°45′N 37°37′E	6592800	144526636	28918

Question 5: In the box to the right of the data, compute the following: average population, minimum population, and maximum population.

Difficulty: 2

Average Population:
Minimum Population:
Maximum Population:

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
USA	Washington DC	38°53’N 77°01’W	3796742	325719178	61687
Mexico	Mexico City	19°26’N 99°08’W	761610	123675325	20028
Canada	Ottawa	45°24’N 75°40’W	3855100	35151728	49620
Venezuela	Caracas	10°30’N 66°55’W	353841	31568179	11722
Brazil	Brasília	15°47’S 47°52’W	3287956	208568000	15919
Uruguay	Montevideo	34°53’S 56°10’W	68037	3444006	23504
Costa Rica	San José	9°56’N 84°5’W	19700	4857274	17260
Haiti	Port-au-Prince	18°32’N 72°20’W	10710	10847334	1819
Dominican Republic	Santo Domingo	19°00’N 70°40’W	18655	10800857	17096
Bolivia	Sucre	17°48’S 63°10’W	424164	11217864	7870
Ecuador	Quito	00°9’S 78°21’W	109484	16385068	11788
Peru	Lima	12°2.6’S 77°1.7’W	496225	32553697	13341
Germany	Berlin	52°31’N 13°23’E	137903	82800000	50206
Italy	Rome	41°54’N 12°29’E	116347	60589445	36823
Spain	Madrid	40°26’N 3°42’W	195360	46354321	39944
Poland	Warsaw	52°13’N 21°02’E	120726	38422346	30827
Norway	Oslo	59°56’N 10°41’E	148728	5267146	72702
Finland	Helsinki	60°10’N 24°56’E	130666	5509717	45787
England	London	51°30’N 0°7’W	50301	55268100	37747
China	Beijing	39°55’N 116°23’E	3705407	1403500365	16624
Japan	Tokyo	35°41’N 139°46’E	145936	126672000	44246
India	New Delhi	28°36.8’N 77°12.5’E	1269219	1324171354	7749
Switzerland	Bern	46°57’N 7°27’E	15940	8401120	61360
Austria	Vienna	48°12’N 16°21’E	32386	8823054	49247
Russia	Moscow	55°45’N 37°37’E	6592800	144526636	28918

Question 6: Format this data set into a table.

Difficulty: 2

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
Haiti	Port-au-Prince	18°32’N 72°20’W	10710	10847334	1819
Switzerland	Bern	46°57’N 7°27’E	15940	8401120	61360
Dominican Republic	Santo Domingo	19°00’N 70°40’W	18655	10800857	17096
Costa Rica	San José	9°56’N 84°5’W	19700	4857274	17260
Austria	Vienna	48°12’N 16°21’E	32386	8823054	49247
England	London	51°30’N 0°7’W	50301	55268100	37747
Uruguay	Montevideo	34°53’S 56°10’W	68037	3444006	23504
Ecuador	Quito	00°9’S 78°21’W	109484	16385068	11788
Italy	Rome	41°54’N 12°29’E	116347	60589445	36823
Poland	Warsaw	52°13’N 21°02’E	120726	38422346	30827
Finland	Helsinki	60°10’N 24°56’E	130666	5509717	45787
Germany	Berlin	52°31’N 13°23’E	137903	82800000	50206
Japan	Tokyo	35°41’N 139°46’E	145936	126672000	44246
Norway	Oslo	59°56’N 10°41’E	148728	5267146	72702
Spain	Madrid	40°26’N 3°42’W	195360	46354321	39944
Venezuela	Caracas	10°30’N 66°55’W	353841	31568179	11722
Bolivia	Sucre	17°48’S 63°10’W	424164	11217864	7870
Peru	Lima	12°2.6’S 77°1.7’W	496225	32553697	13341
Mexico	Mexico City	19°26’N 99°08’W	761610	123675325	20028
India	New Delhi	28°36.8’N 77°12.5’E	1269219	1324171354	7749
Brazil	Brasília	15°47’S 47°52’W	3287956	208568000	15919
China	Beijing	39°55’N 116°23’E	3705407	1403500365	16624
Russia	Moscow	55°45’N 37°37’E	6592800	144526636	28918
USA	Washington DC	38°53’N 77°01’W	3796742	325719178	61687
Canada	Ottawa	45°24’N 75°40’W	3855100	35151728	49620

Question 7: Sort the data in ascending alphabetical order by country name.

Difficulty: 2

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
USA	Washington DC	38°53’N 77°01’W	3796742	325719178	61687
Mexico	Mexico City	19°26’N 99°08’W	761610	123675325	20028
Canada	Ottawa	45°24’N 75°40’W	3855100	35151728	49620
Venezuela	Caracas	10°30’N 66°55’W	353841	31568179	11722
Brazil	Brasília	15°47’S 47°52’W	3287956	208568000	15919
Uruguay	Montevideo	34°53’S 56°10’W	68037	3444006	23504
Costa Rica	San José	9°56’N 84°5’W	19700	4857274	17260
Haiti	Port-au-Prince	18°32’N 72°20’W	10710	10847334	1819
Dominican Republic	Santo Domingo	19°00’N 70°40’W	18655	10800857	17096
Bolivia	Sucre	17°48’S 63°10’W	424164	11217864	7870
Ecuador	Quito	00°9’S 78°21’W	109484	16385068	11788
Peru	Lima	12°2.6’S 77°1.7’W	496225	32553697	13341
Germany	Berlin	52°31’N 13°23’E	137903	82800000	50206
Italy	Rome	41°54’N 12°29’E	116347	60589445	36823
Spain	Madrid	40°26’N 3°42’W	195360	46354321	39944
Poland	Warsaw	52°13’N 21°02’E	120726	38422346	30827
Norway	Oslo	59°56’N 10°41’E	148728	5267146	72702
Finland	Helsinki	60°10’N 24°56’E	130666	5509717	45787
England	London	51°30’N 0°7’W	50301	55268100	37747
China	Beijing	39°55’N 116°23’E	3705407	1403500365	16624
Japan	Tokyo	35°41’N 139°46’E	145936	126672000	44246
India	New Delhi	28°36.8’N 77°12.5’E	1269219	1324171354	7749
Switzerland	Bern	46°57’N 7°27’E	15940	8401120	61360
Austria	Vienna	48°12’N 16°21’E	32386	8823054	49247
Russia	Moscow	55°45’N 37°37’E	6592800	144526636	28918

Question 8: Apply data bars in the population column.

Difficulty: 3

Country Name	Capital	Coordinates of Capital	Total Area (sq mi)	Population	GDP per capita
Haiti	Port-au-Prince	18°32'N 72°20'W	10710	10847334	1819
Switzerland	Bern	46°57'N 7°27'E	15940	8401120	61360
Dominican Republic	Santo Domingo	19°00'N 70°40'W	18655	10800857	17096
Costa Rica	San José	9°56'N 84°5'W	19700	4857274	17260
Austria	Vienna	48°12'N 16°21'E	32386	8823054	49247
England	London	51°30'N 0°7'W	50301	55268100	37747
Uruguay	Montevideo	34°53'S 56°10'W	68037	3444006	23504
Ecuador	Quito	00°9'S 78°21'W	109484	16385068	11788
Italy	Rome	41°54'N 12°29'E	116347	60589445	36823
Poland	Warsaw	52°13'N 21°02'E	120726	38422346	30827
Finland	Helsinki	60°10'N 24°56'E	130666	5509717	45787
Germany	Berlin	52°31'N 13°23'E	137903	82800000	50206
Japan	Tokyo	35°41'N 139°46'E	145936	126672000	44246
Norway	Oslo	59°56'N 10°41'E	148728	5267146	72702
Spain	Madrid	40°26'N 3°42'W	195360	46354321	39944
Venezuela	Caracas	10°30'N 66°55'W	353841	31568179	11722
Bolivia	Sucre	17°48'S 63°10'W	424164	11217864	7870
Peru	Lima	12°2.6'S 77°1.7'W	496225	32553697	13341
Mexico	Mexico City	19°26'N 99°08'W	761610	123675325	20028
India	New Delhi	28°36.8'N 77°12.5'E	1269219	1324171354	7749
Brazil	Brasília	15°47'S 47°52'W	3287956	208568000	15919
China	Beijing	39°55'N 116°23'E	3705407	1403500365	16624
Russia	Moscow	55°45'N 37°37'E	6592800	144526636	28918
USA	Washington DC	38°53'N 77°01'W	3796742	325719178	61687
Canada	Ottawa	45°24'N 75°40'W	3855100	35151728	49620

Question 9: Add subtotals to the tabel above.

Difficulty: 3

Country Name	Population
Haiti	10847334
Switzerland	8401120
Dominican Republic	10800857
Costa Rica	4857274
Austria	8823054
England	55268100
Uruguay	3444006
Ecuador	16385068
Italy	60589445
Poland	38422346
Finland	5509717
Germany	82800000
Japan	126672000
Norway	5267146
Spain	46354321
Venezuela	31568179
Bolivia	11217864
Peru	32553697
Mexico	123675325
India	1324171354
Brazil	208568000
China	1403500365
Russia	144526636
USA	325719178
Canada	35151728

Question 10: Create a bar chart with the data above.

Difficulty: 3

Data sources:
The information on the previous page came from Wikipedia. The specfic citations are listed below.

https://en.wikipedia.org/wiki/Dominican_Republic
https://en.wikipedia.org/wiki/Haiti
https://en.wikipedia.org/wiki/Costa_Rica
https://en.wikipedia.org/wiki/Uruguay
https://en.wikipedia.org/wiki/Brazil
https://en.wikipedia.org/wiki/Venezuela
https://en.wikipedia.org/wiki/Canada
https://en.wikipedia.org/wiki/Mexico
https://en.wikipedia.org/wiki/United_States
https://en.wikipedia.org/wiki/Bolivia
https://en.wikipedia.org/wiki/Ecuador
https://en.wikipedia.org/wiki/Peru
https://en.wikipedia.org/wiki/Germany
https://en.wikipedia.org/wiki/Italy
https://en.wikipedia.org/wiki/Spain
https://en.wikipedia.org/wiki/Poland
https://en.wikipedia.org/wiki/Norway
https://en.wikipedia.org/wiki/Finland
https://en.wikipedia.org/wiki/England
https://en.wikipedia.org/wiki/China
https://en.wikipedia.org/wiki/Japan
https://en.wikipedia.org/wiki/India
https://en.wikipedia.org/wiki/Switzerland
https://en.wikipedia.org/wiki/Russia

Excel Basics

Workshop 1

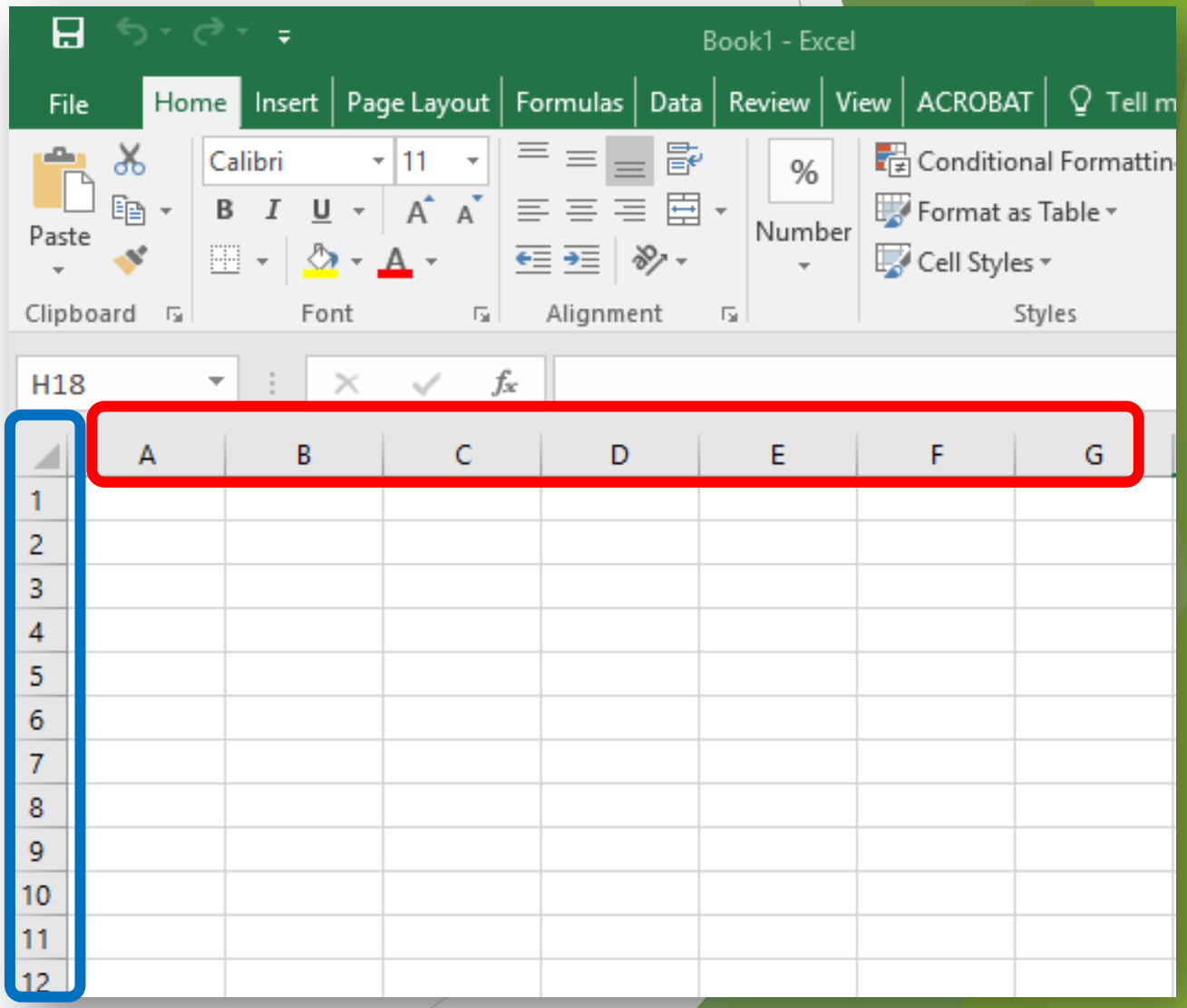
WHAT WE'LL COVER

- Rows and Columns
- Entering Data
- Page Layout
- Formulas
- Data – Sorting, Filtering
- Review – Check Spelling, Protecting your Worksheet
- Viewing your Worksheets

ROWS AND COLUMNS

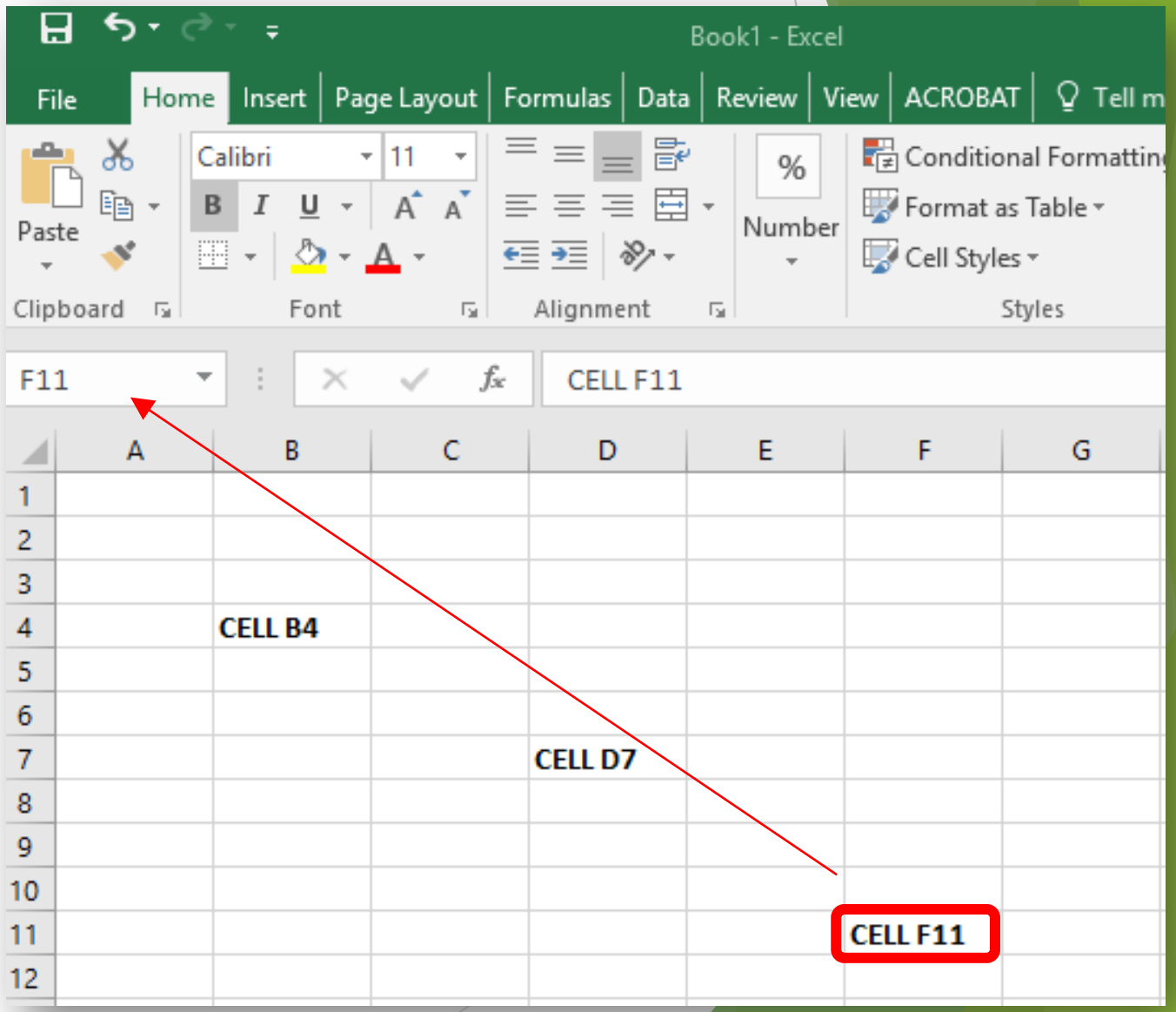
COLUMNS are represented by letter on the top of the worksheet

ROWS are represented by numbers on the left side of the worksheet



CELLS

The intersection point of a row and a column is a CELL.

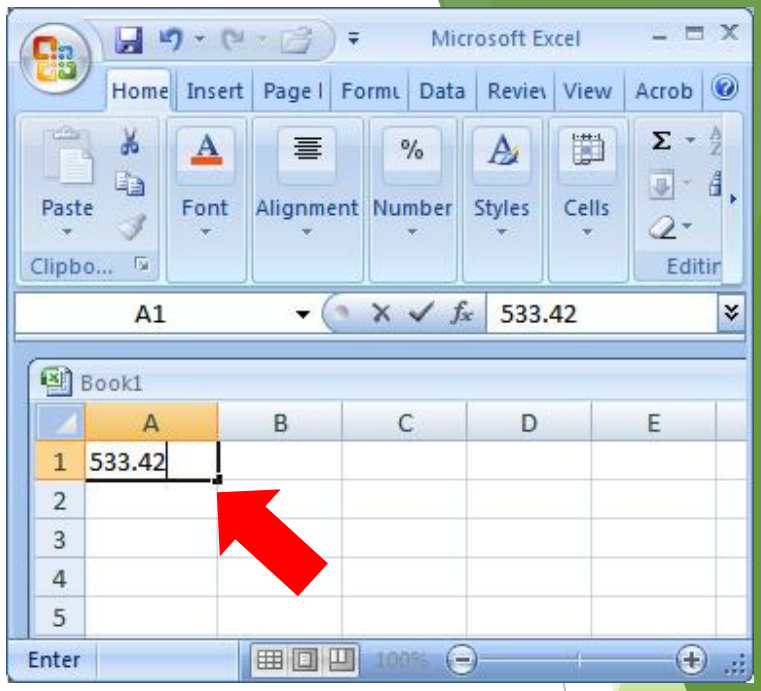


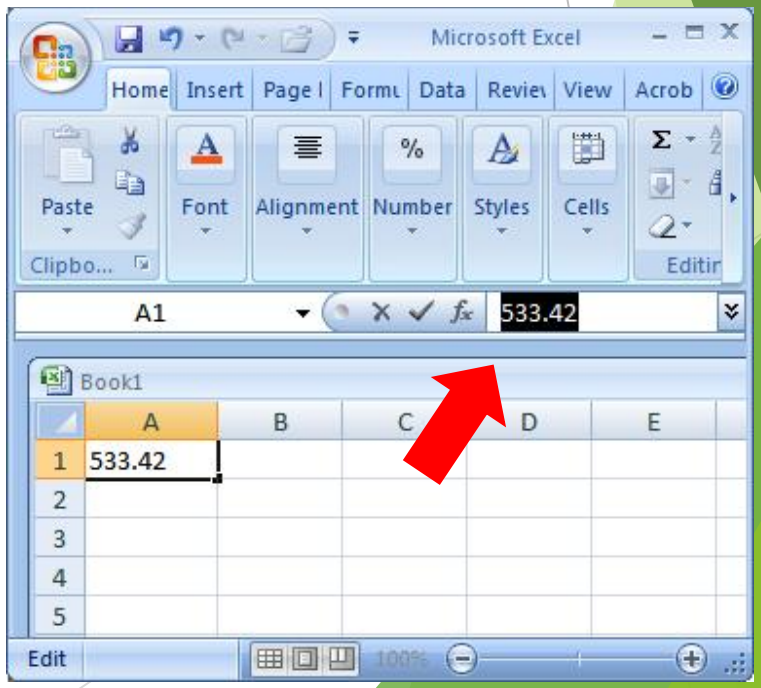
ENTERING DATA

Two ways to enter data:

1) Directly into the cell

2) Into the formula bar

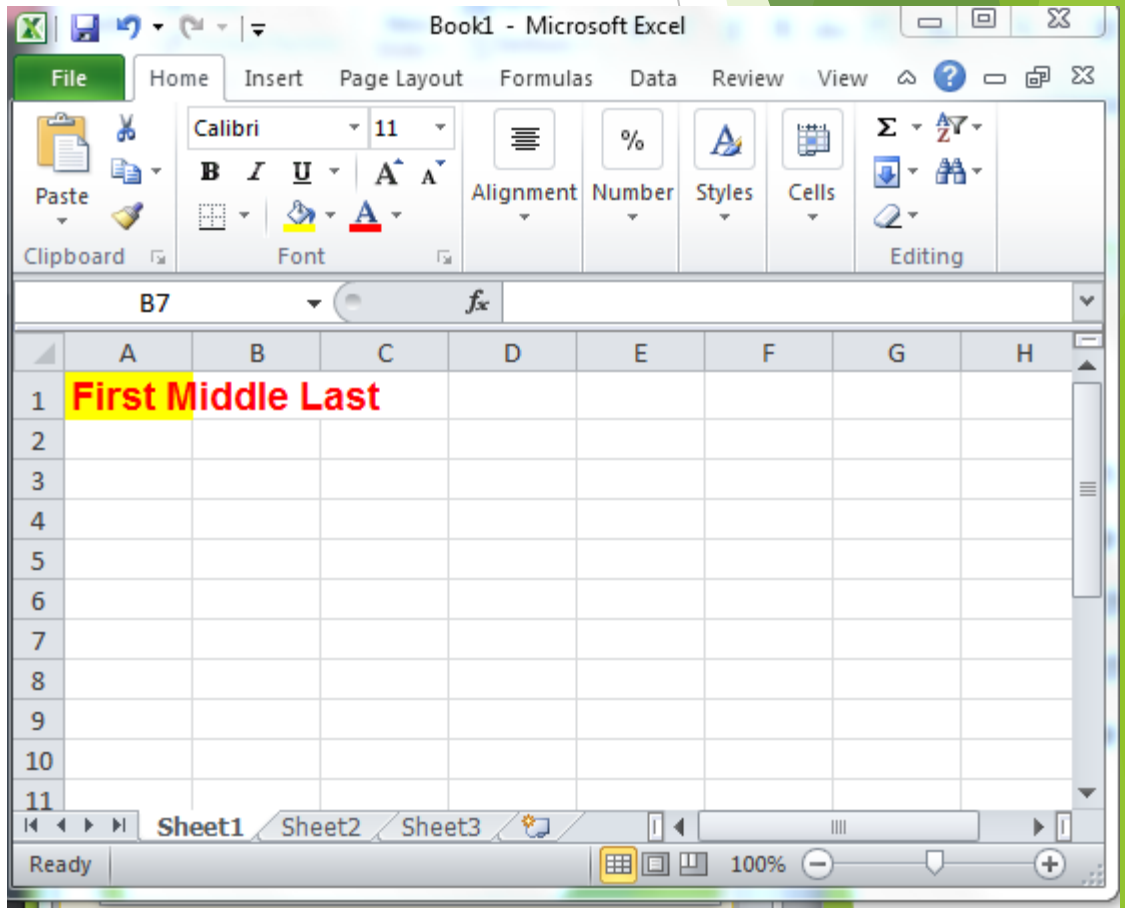




ACTIVITY: FONT

- Click cursor in cell A1
- Type your full name (first, middle, last) to cell A1
- Change font to Arial and size 14
- Make the text bold
- Color the text red
- Fill the cell with yellow

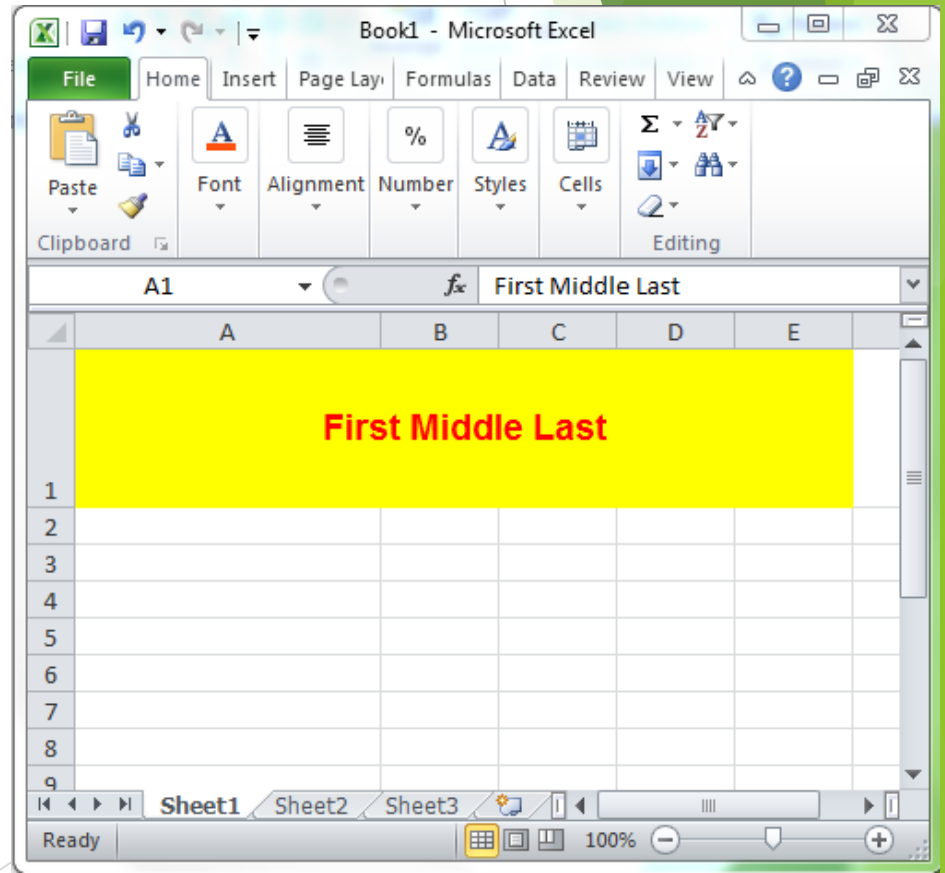
Your Excel Spreadsheet should now look like this:



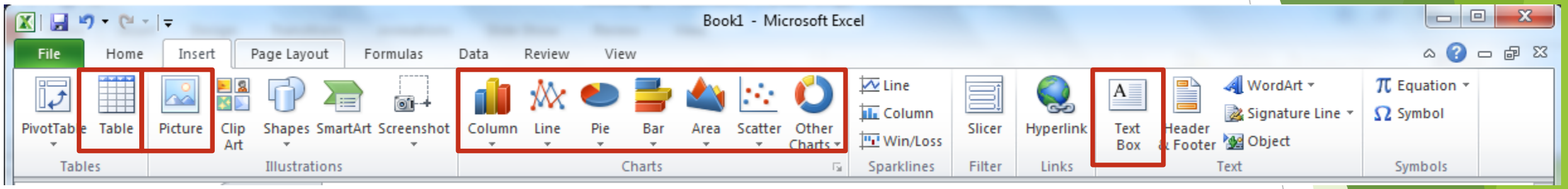
ACTIVITY: ALIGNMENT

- Double click directly between Column A and Column B
- Select cells A1 through E1
- Select the button that says “Merge & Center”
- Click directly between Row 1 and Row 2 to expand the row
- Select the cell with your name in it
- Select “Middle Align”

Your Excel Spreadsheet should now look like this:

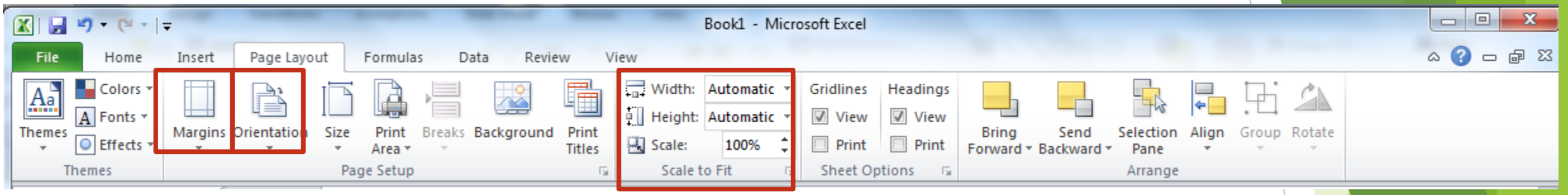


THE INSERT TAB



- Organize data into an organized manner with the table button
- Insert a picture from your computer onto the spreadsheet
- Turn the data into a chart/graph for a visual representation of the numbers
- Insert a textbox

THE PAGE LAYOUT TAB

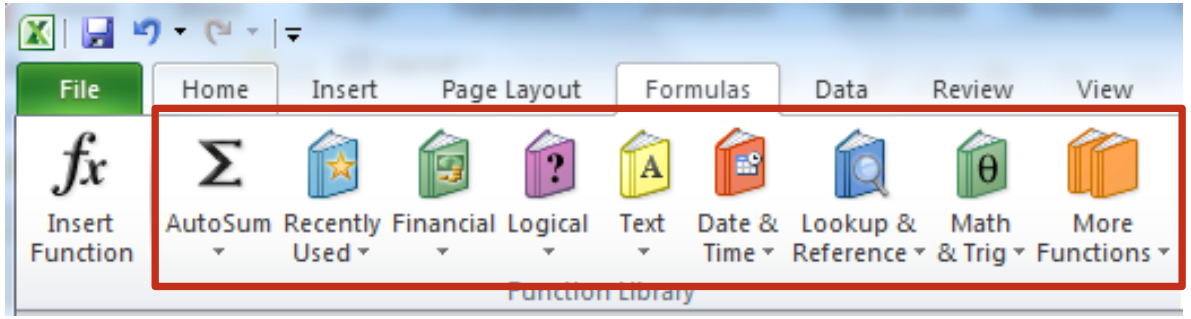


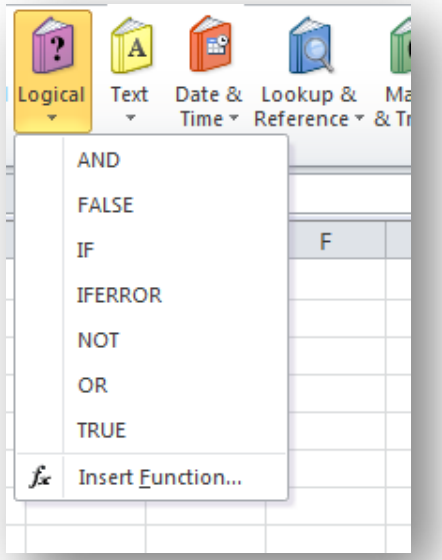
The page layout tab makes printing documents easier you can:

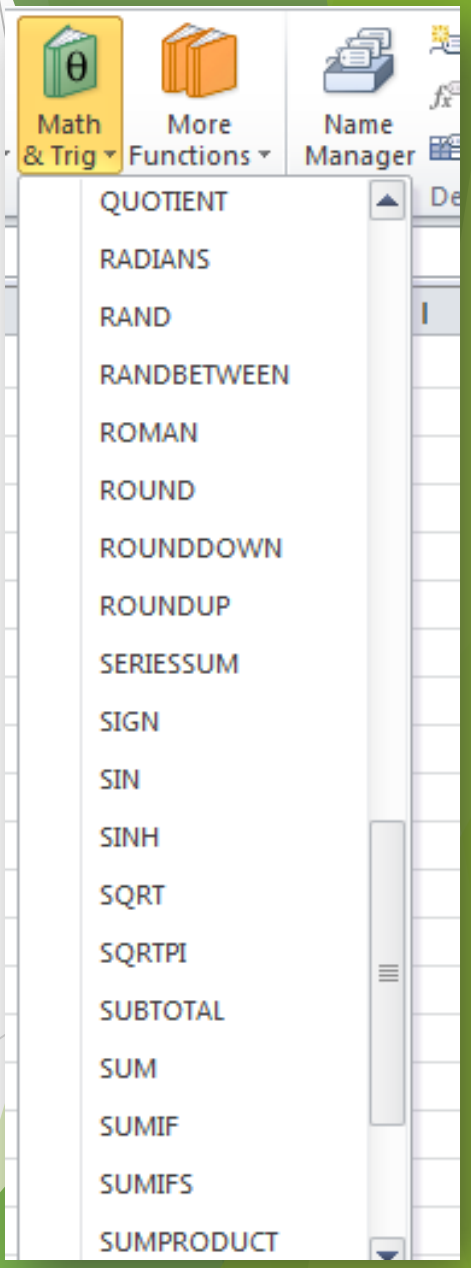
- Adjust the margins
- Change the orientation
- Change the dimensions of the worksheet

The changes will show up as dashed blue lines on the worksheet.

INTRODUCTION TO FORMULAS

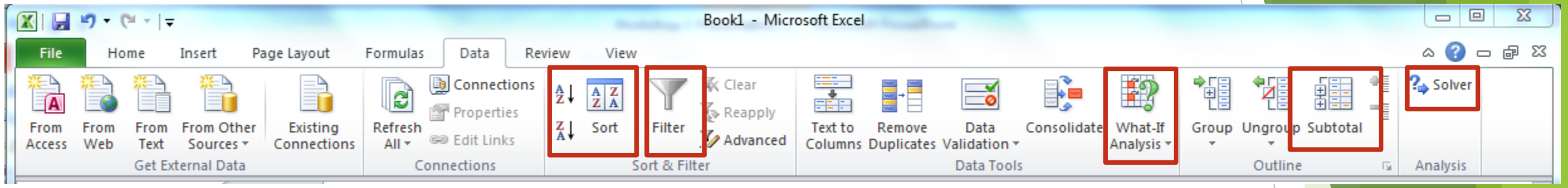






The formula tab is a way to see all the formula options and quick descriptions of each one.

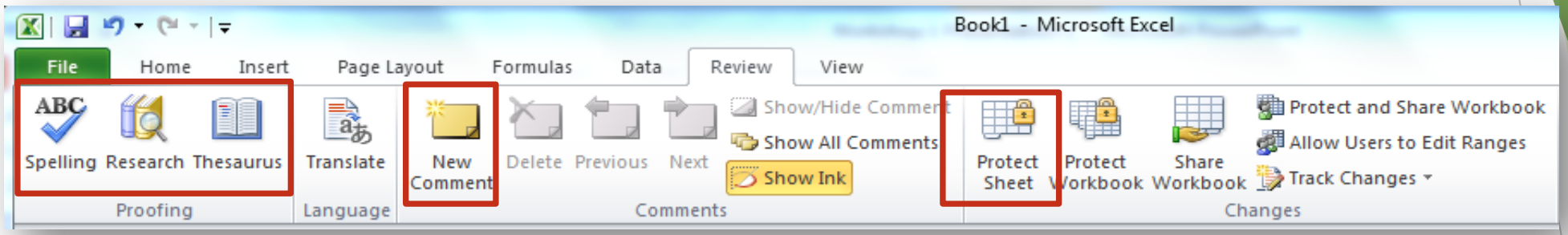
THE DATA TAB



This tab makes data easier to read and analyze by allowing actions such as:

- Sorting the data
- Filtering the data
- What-if analysis
- Subtotaling
- Solver

THE REVIEW TAB



- SPELLING button corrects spelling errors

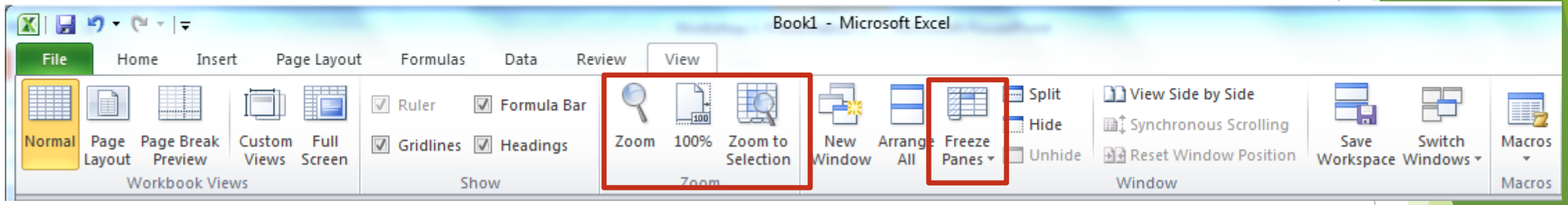
  (Excel is not like word, it will not tell you when you misspell a word)

- NEW COMMENT button allows you to insert a comment

  (Serve as a reminder or a form of communication for other users of the worksheet)

- PROTECT SHEET button allows you to password protect the worksheet

THE VIEW TAB



- Zoom into a certain section of the worksheet
- It is possible to freeze rows and columns in order to enhance viewing and scrolling through data

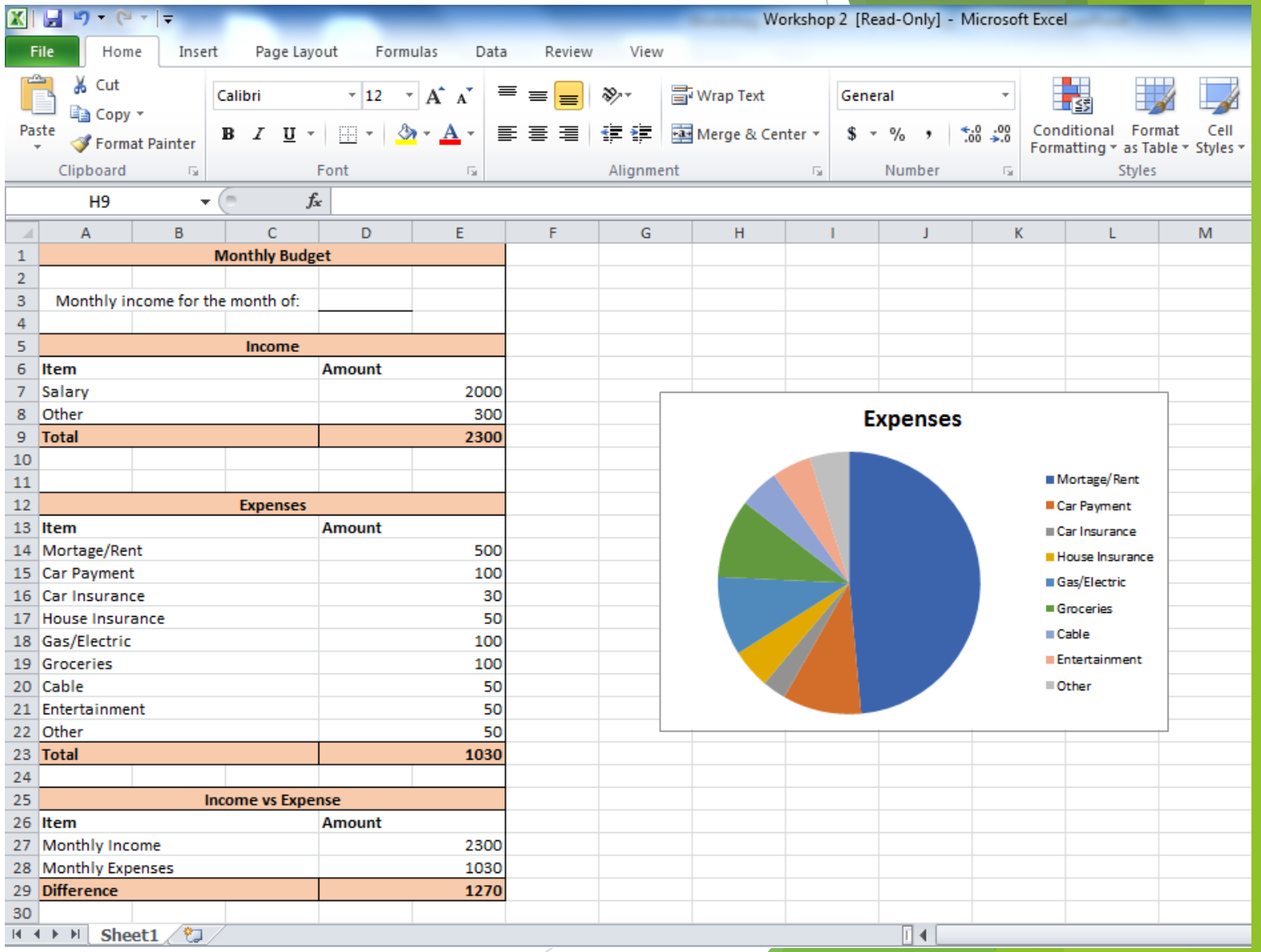

Q
A

Excel Techniques

Workshop 2

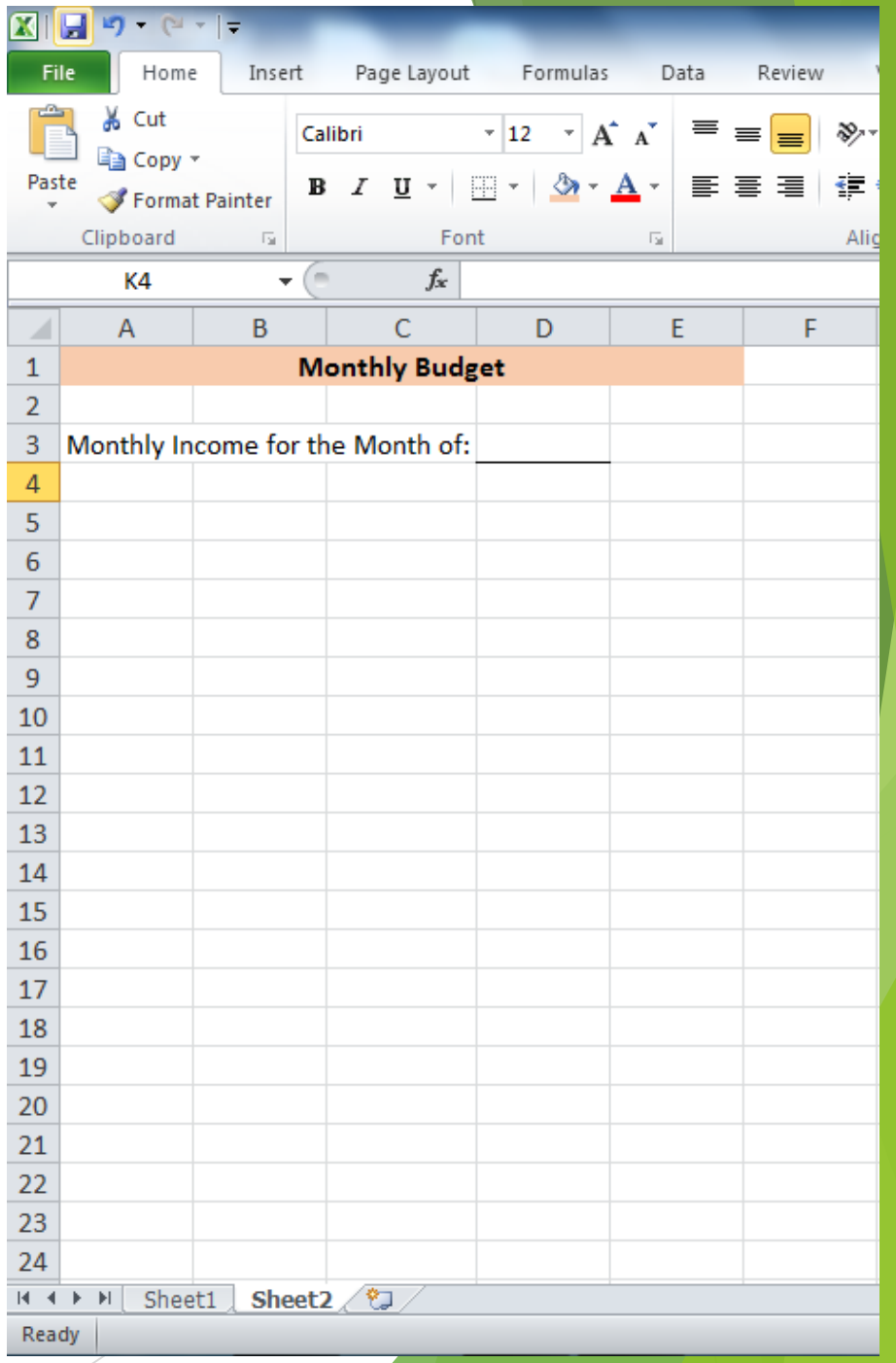
WHAT WE'LL COVER

- Creating a Monthly Budget
- Using Basic Functions
- Formatting Skills
- Creating a Pie Chart



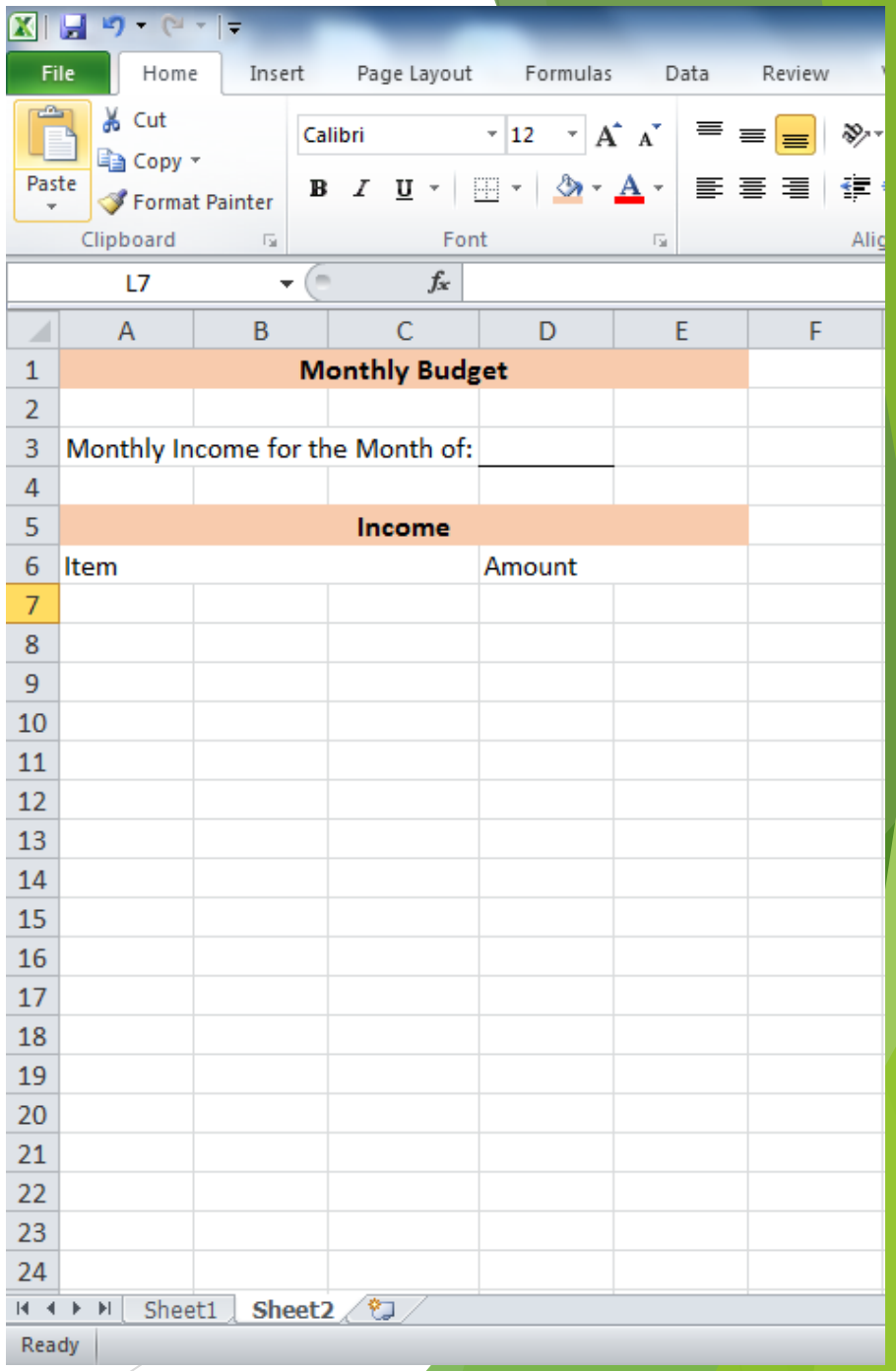
CREATING THE BUDGET

- Open a blank Excel sheet
- Type “Monthly Budget” in Cell A1
- Merge & Center cells A1 to E1
- Make the text bold
- Fill the selected cell with a color of your choice
- In cell A3, type “Monthly budget for the month of:”
- Merge cells A3 to C3
- Add a bottom border to cell D3



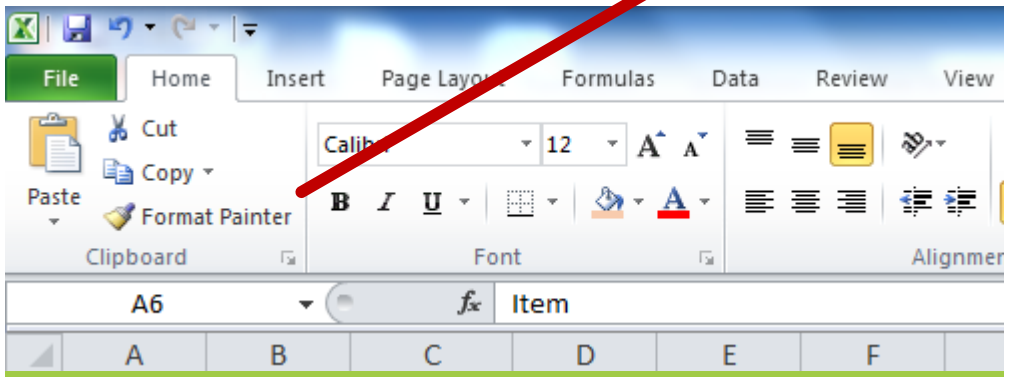
CREATING THE BUDGET

- In cell A5, type “Income”
- Merge & Center cells A5 to D5
- Fill with color of your choice
- Bold text
- Merge cells A6 to C6
- Type “Item”
- Merge cells D6 to E6
- Type “Amount”

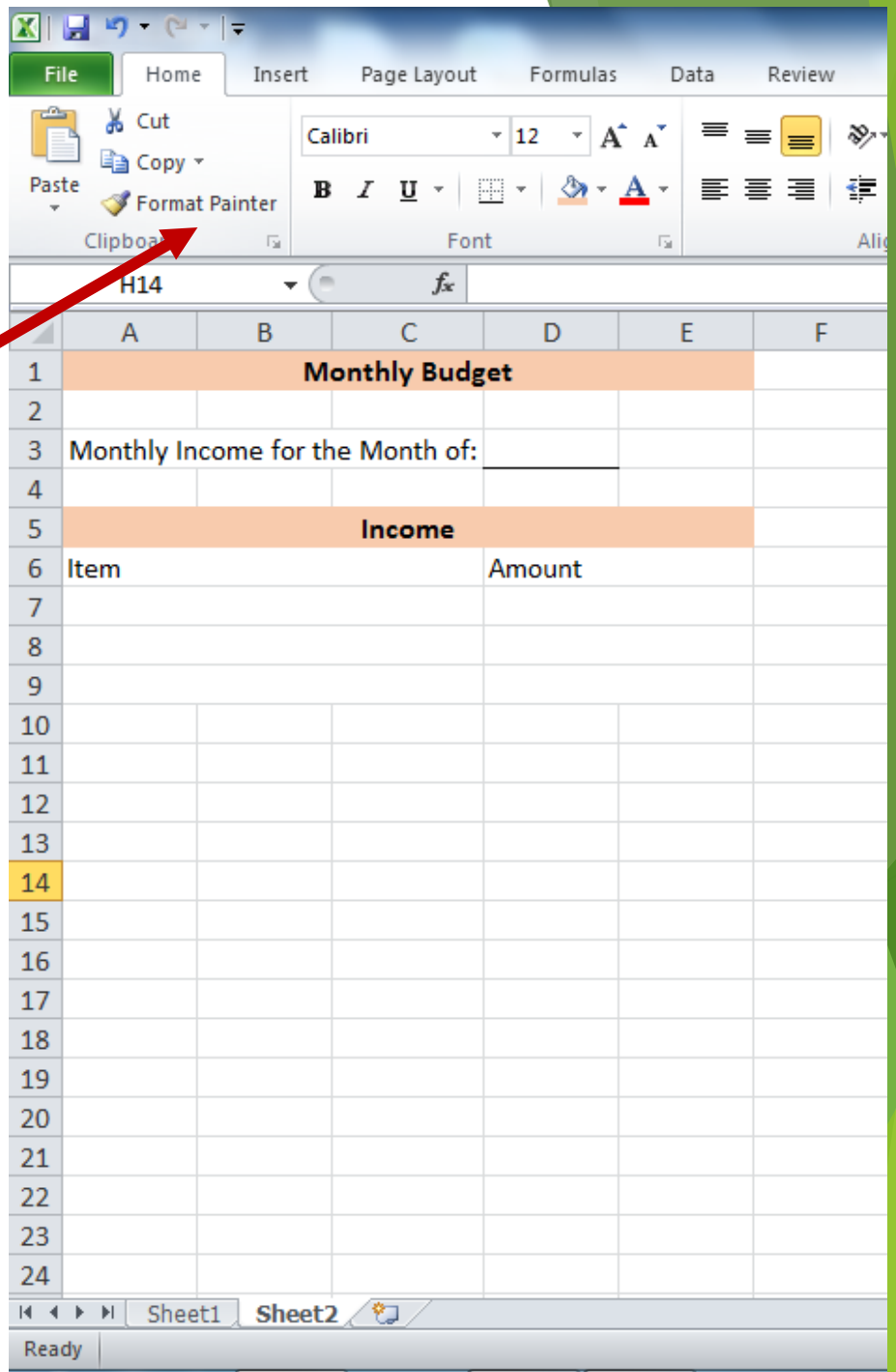


CREATING THE BUDGET

- Select cells A6 to E6
- Select the Format Painter button
- Apply Format Painter to cells A7 to E9

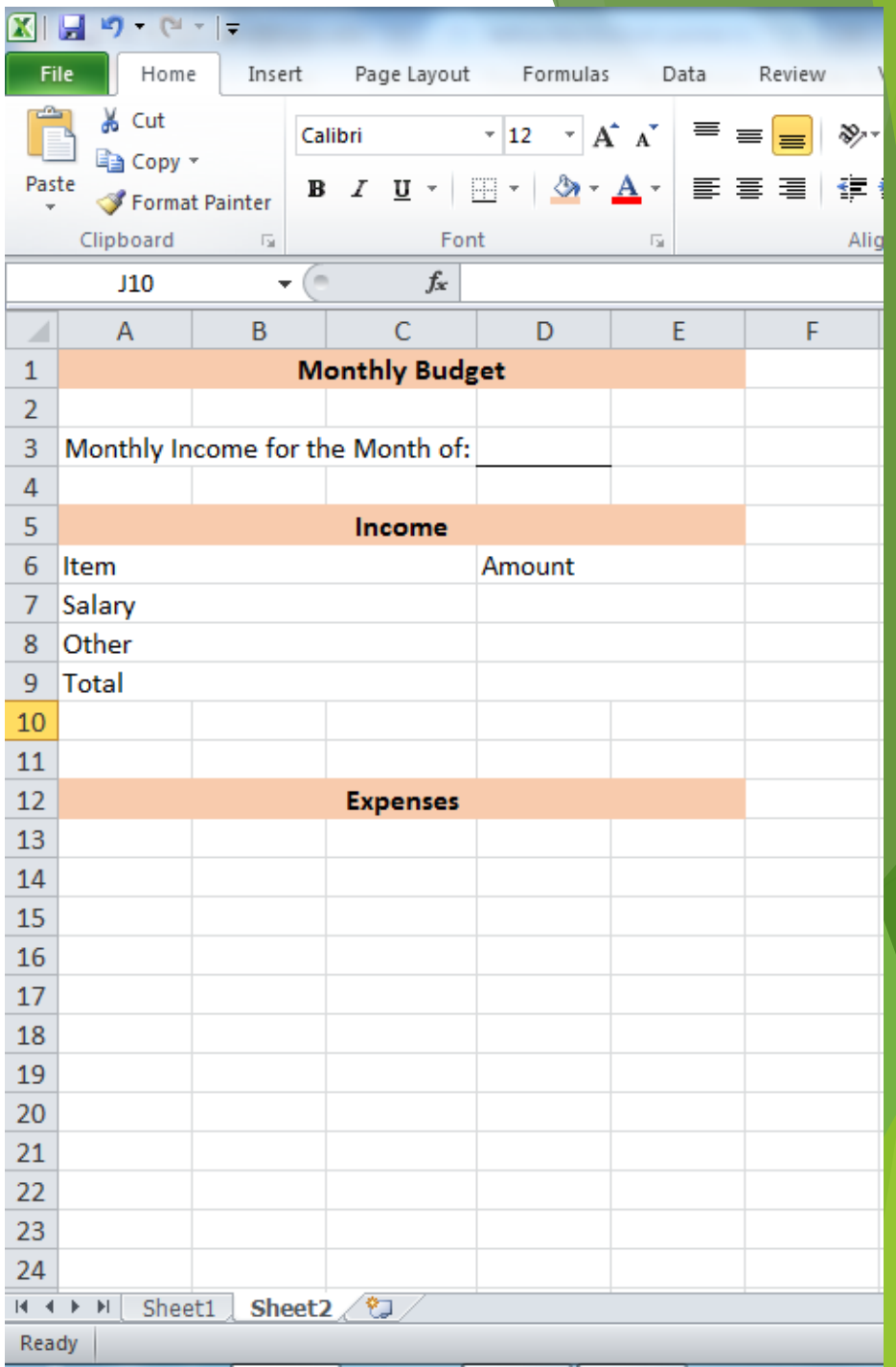


Format Painter
is used when you want to copy formatting from one item to another



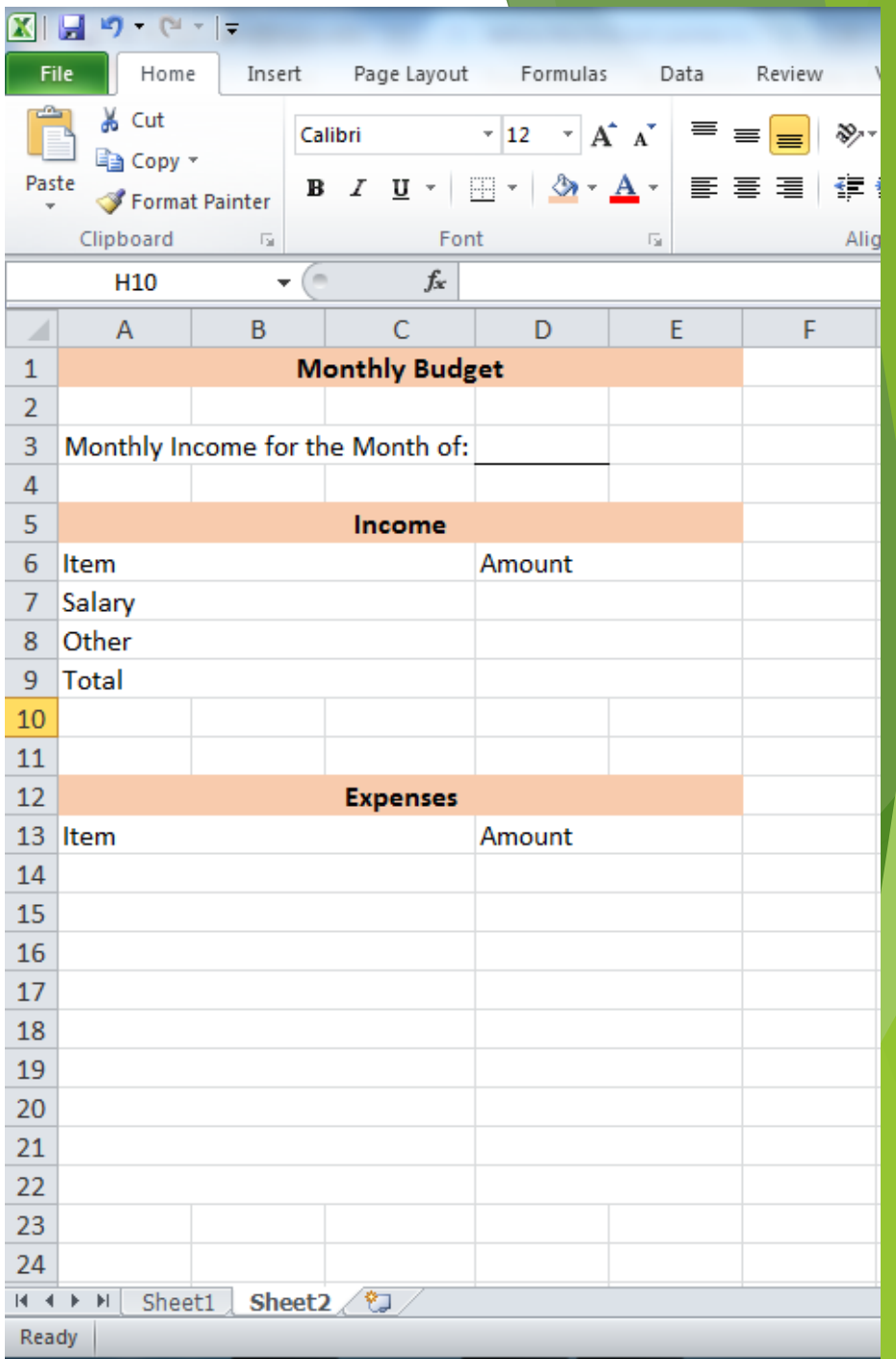
CREATING THE BUDGET

- Type the following:
  - Cell A7: “Salary”
  - Cell A8: “Other”
  - Cell A9: “Total”
- Select cells A5 to E5
- Select the Format Painter button
- Apply Format Painter to cells A12 to E12
- Type “Expenses”



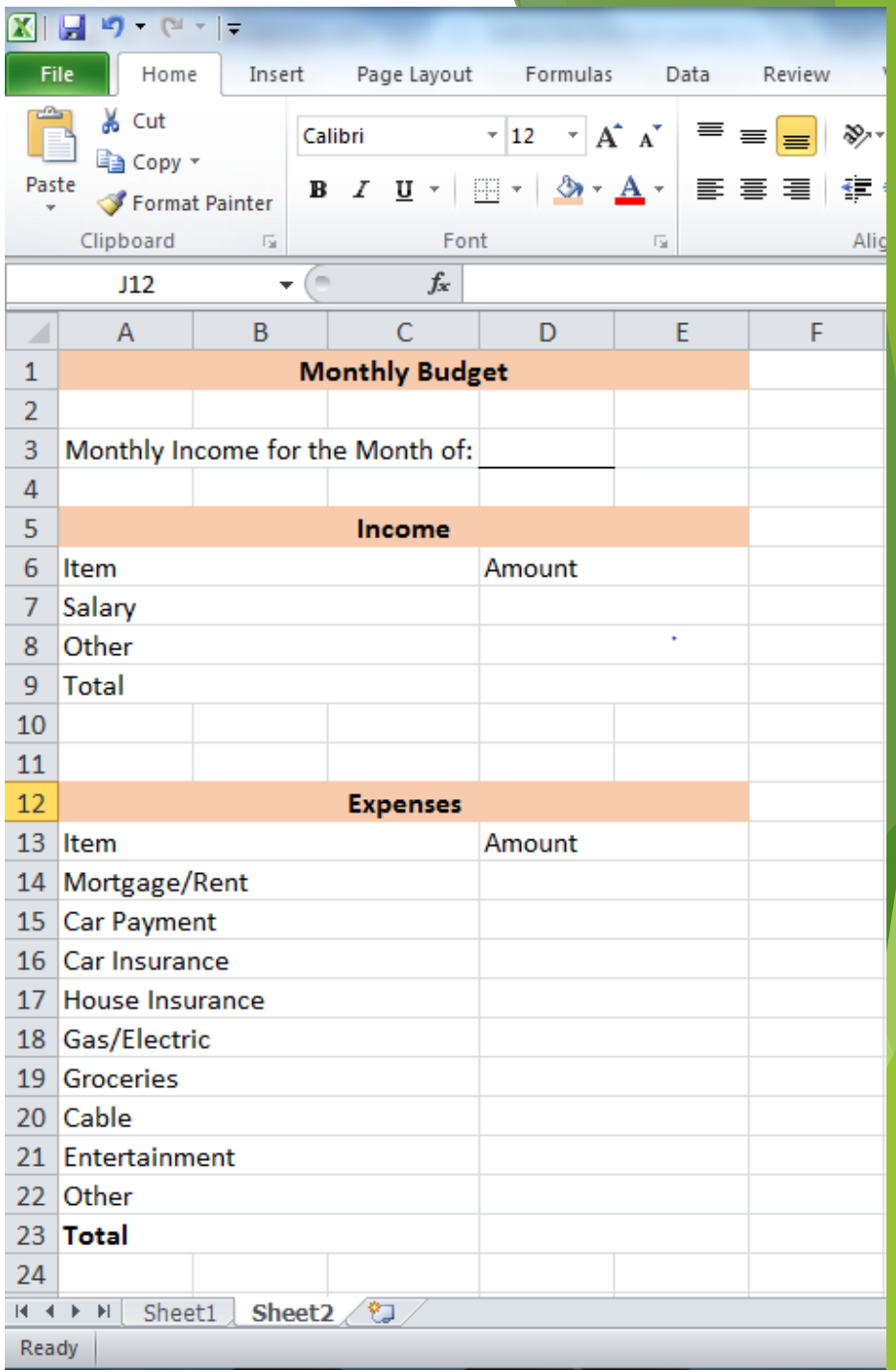
CREATING THE BUDGET

- Copy cells A6 to E6
- Paste in cells A13 to E13
- Select cells A7 to E7
- Select the Format Painter button
- Apply Format Painter to cells A14 to E23



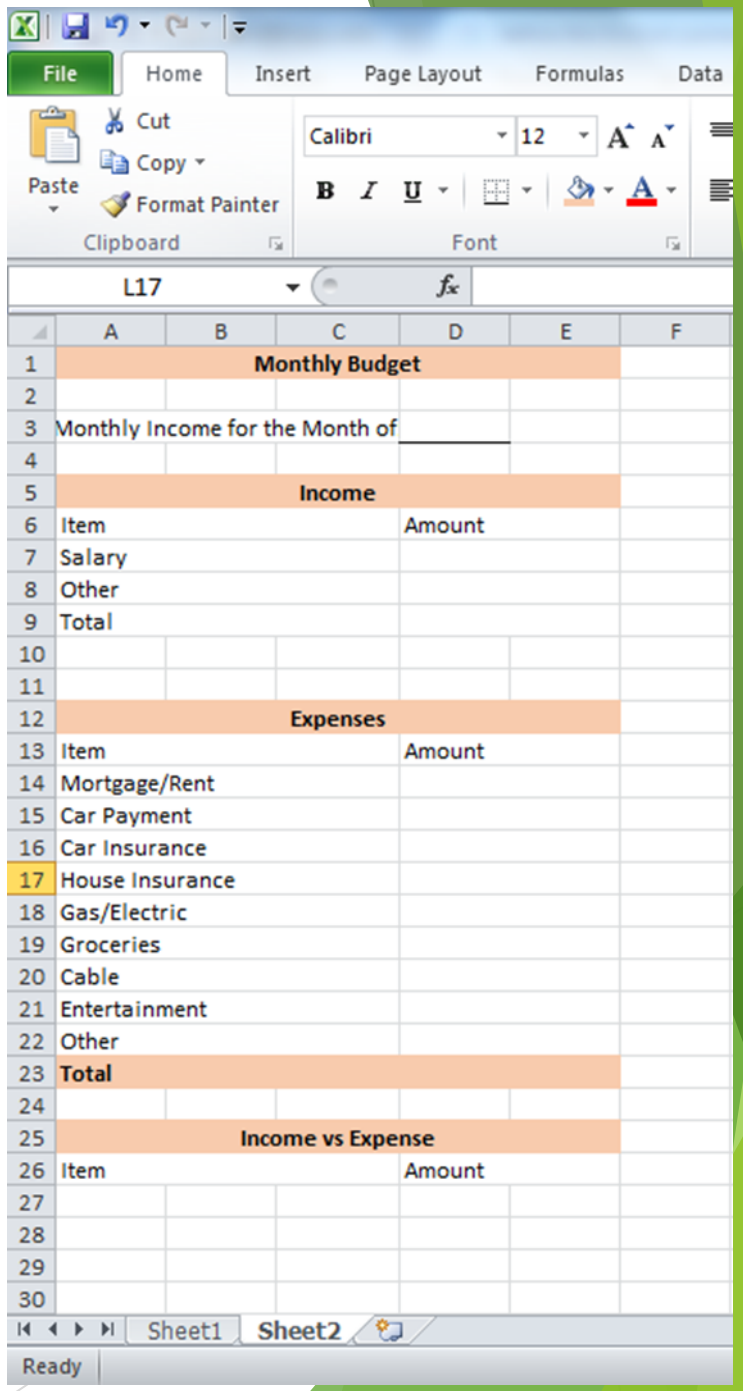
CREATING THE BUDGET

- Type the following:
  - Cell A14: “Mortgage/Rent”
  - Cell A15: “Car Payment”
  - Cell A16: “Car Insurance”
  - Cell A17: “House Insurance”
  - Cell A18: “Gas/Electric”
  - Cell A19: “Groceries”
  - Cell A20: “Cable”
  - Cell A21: “Entertainment”
  - Cell A22: “Other”
  - Cell A23: “Total”



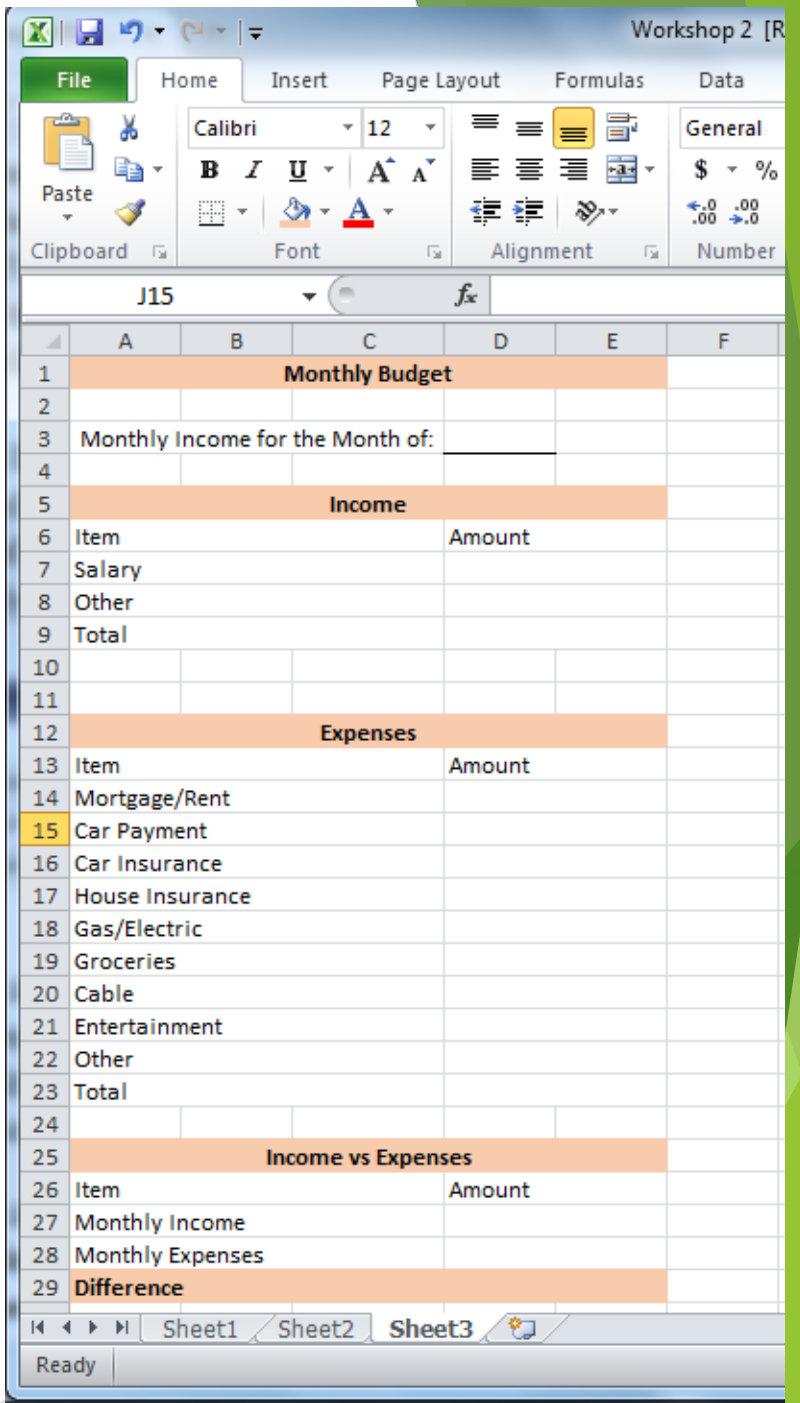
CREATING THE BUDGET

- Select cells A1 to E1
- Select the Format Painter button
- Apply the Format Painter button to cells A25 to E25
- Type “Income vs Expense”
- Copy cells A13 to E13
- Paste into cells A26 to E26



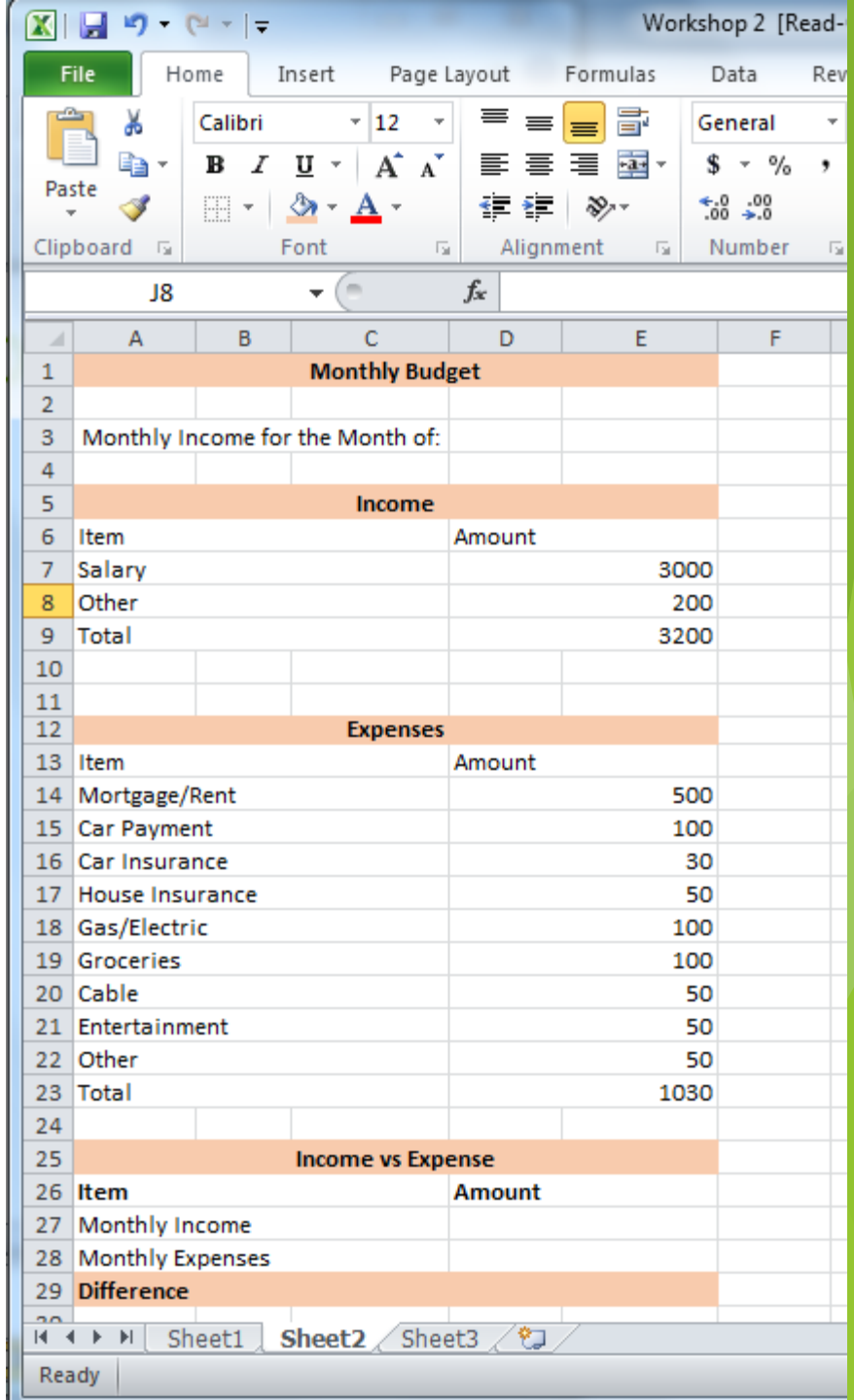
CREATING THE BUDGET

- Select cells A14 to E14
- Select the Format Painter button
- Apply Format Painter to cells A27 to E29
- Type the following:
  - Cell A27: “Monthly Income”
  - Cell A28: “Monthly Expense”
  - Cell A29: “Difference”
- Color cells A29 to E29
- Bold the text



CREATING THE BUDGET

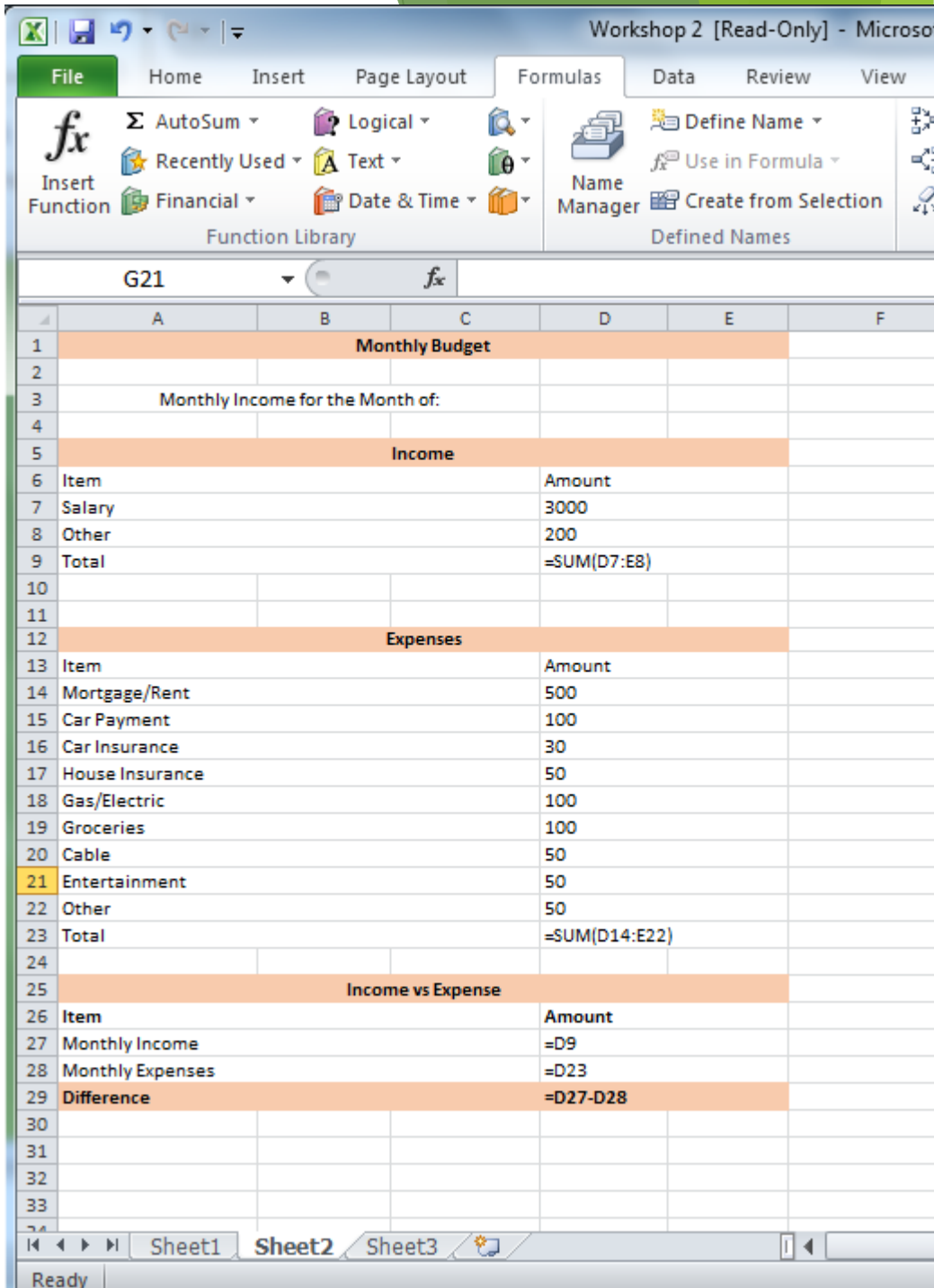
- Type in various numbers to the cells shown in the image
- Use a sum function to get a total of the income
- Use a sum function to get a total of the expenses



CREATING THE BUDGET

- Link cell D27 with cell D9
- Link cell D28 with cell D23
- Subtract cell D28 from cell D27

The image to the right shows the formulas that should be entered in the respective cells.



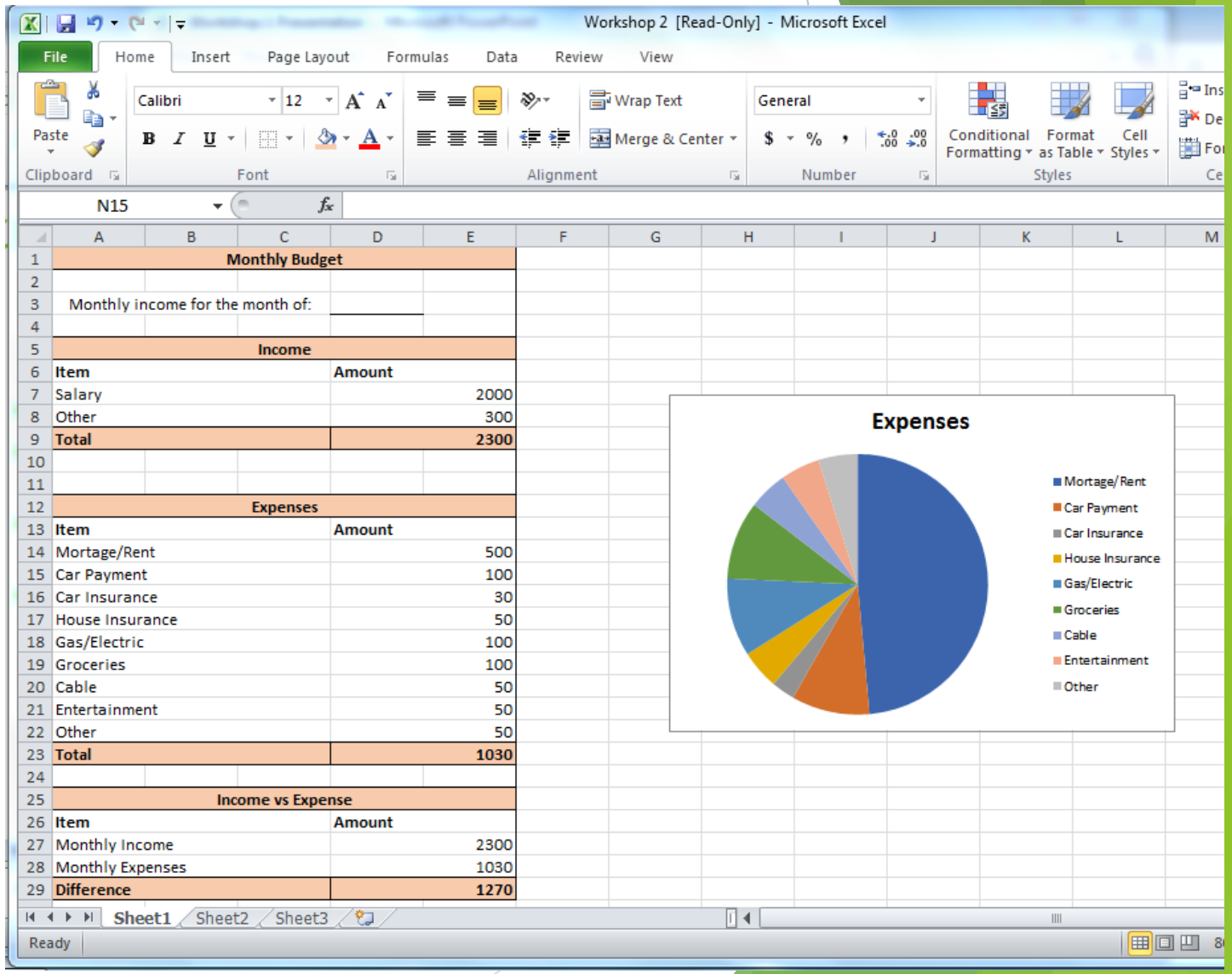
	A	B	C	D	E	F
1	**Monthly Budget**					
2						
3	Monthly Income for the Month of:					
4						
5	**Income**					
6	Item			Amount		
7	Salary			3000		
8	Other			200		
9	Total			=SUM(D7:E8)		
10						
11						
12	**Expenses**					
13	Item			Amount		
14	Mortgage/Rent			500		
15	Car Payment			100		
16	Car Insurance			30		
17	House Insurance			50		
18	Gas/Electric			100		
19	Groceries			100		
20	Cable			50		
21	Entertainment			50		
22	Other			50		
23	Total			=SUM(D14:E22)		
24						
25	**Income vs Expense**					
26	**Item**			**Amount**		
27	Monthly Income			=D9		
28	Monthly Expenses			=D23		
29	**Difference**			**=D27-D28**		
30						
31						
32						
33						

FORMATTING THE BUDGET

- Change all the cells with numbers in it to Currency format
  - Home/Number/Drop-down arrow/Currency
- Add borders to subtitles and total boxes
  - This is optional and up to the user!
- Add/Delete Income and Expense as needed
  - Select area to be added to or deleted/right click/Insert or Delete
- Make it unique and refer to the second slide for ideas

CREATING THE PIE CHART

- Select cells A14 to A22
- Hold the Control button on the keyboard and select cells D14 to D22 as well
- Go to the Insert tab and choose the Pie Chart button
- Adjust the data as needed to only include the Item names and the Amounts



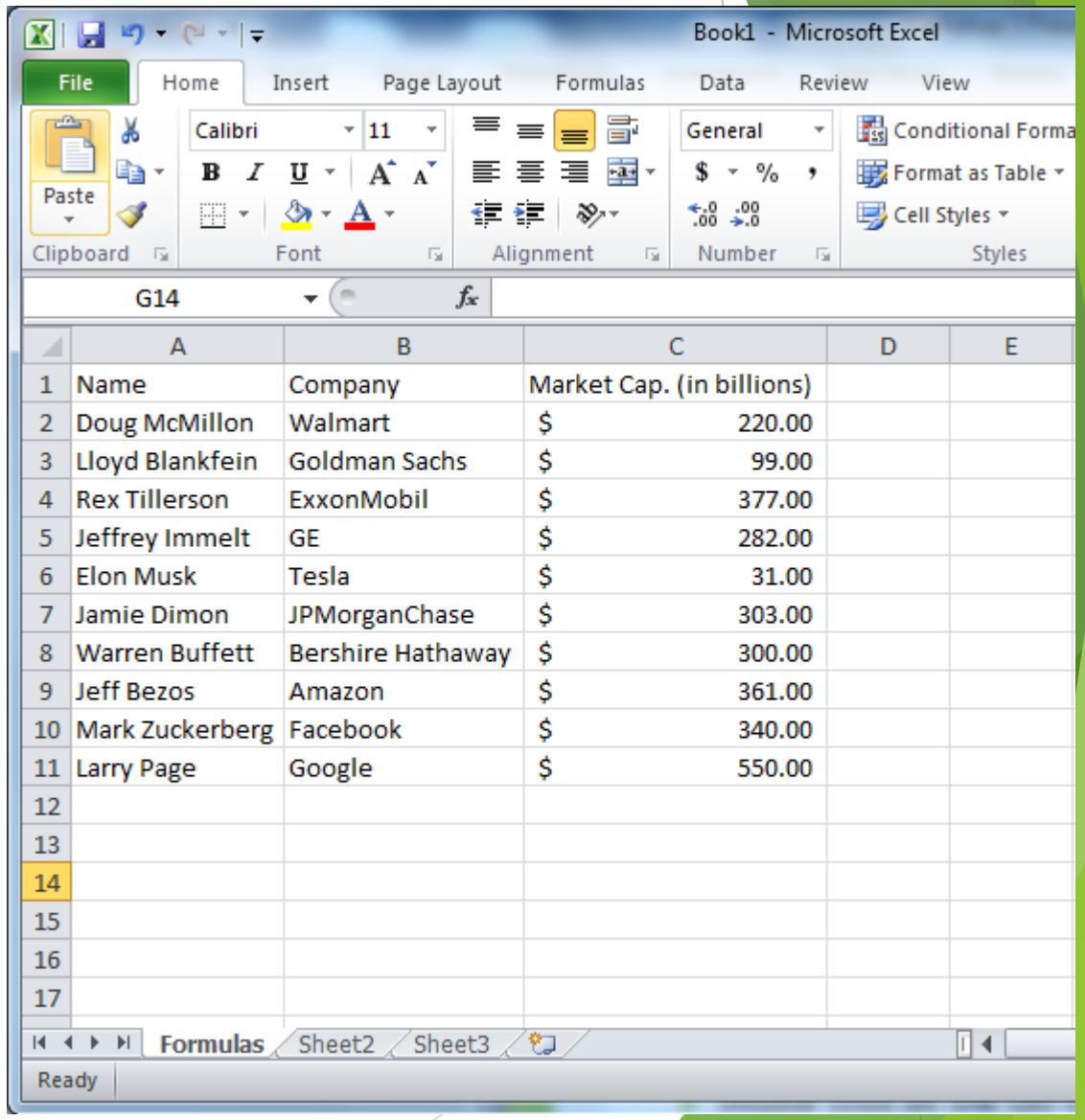
Excel Technique Workshop 3

WHAT WE'LL COVER

- Formulas
- Making Tables
- Conditional Formatting
- Debit Card Log

Inputting Data

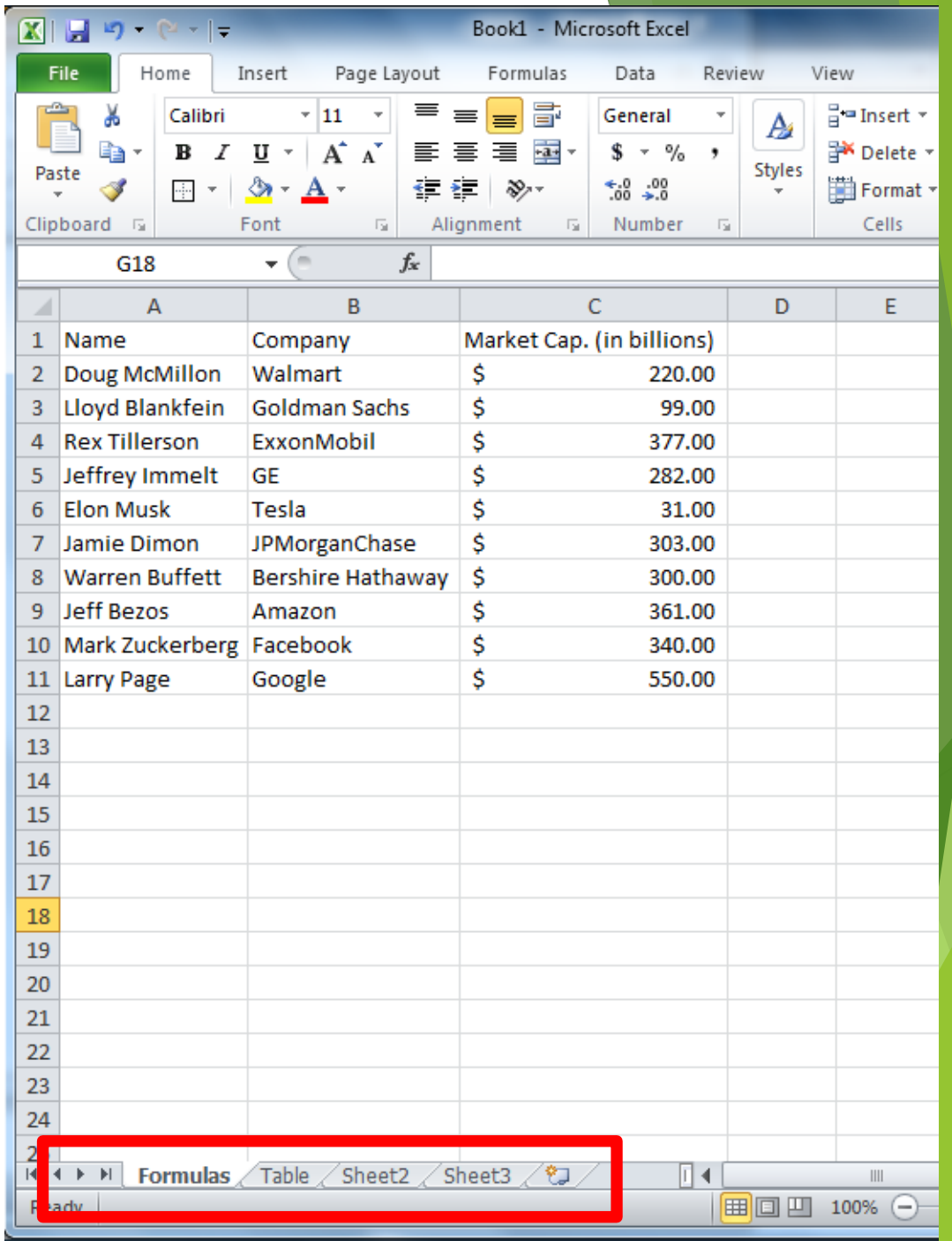
- Open a blank Excel sheet
- Type the information in the image to the right into the Excel sheet
- Adjust columns as needed
- Change the Market Cap. Column format to the Accounting Format
- Name this sheet “Formulas”
  - Double click on the tab that says “Sheet 1” and type Formulas



	A	B	C	D	E
1	Name	Company	Market Cap. (in billions)		
2	Doug McMillon	Walmart	$ 220.00		
3	Lloyd Blankfein	Goldman Sachs	$ 99.00		
4	Rex Tillerson	ExxonMobil	$ 377.00		
5	Jeffrey Immelt	GE	$ 282.00		
6	Elon Musk	Tesla	$ 31.00		
7	Jamie Dimon	JPMorganChase	$ 303.00		
8	Warren Buffett	Bershire Hathaway	$ 300.00		
9	Jeff Bezos	Amazon	$ 361.00		
10	Mark Zuckerberg	Facebook	$ 340.00		
11	Larry Page	Google	$ 550.00		
12					
13					
14					
15					
16					
17					

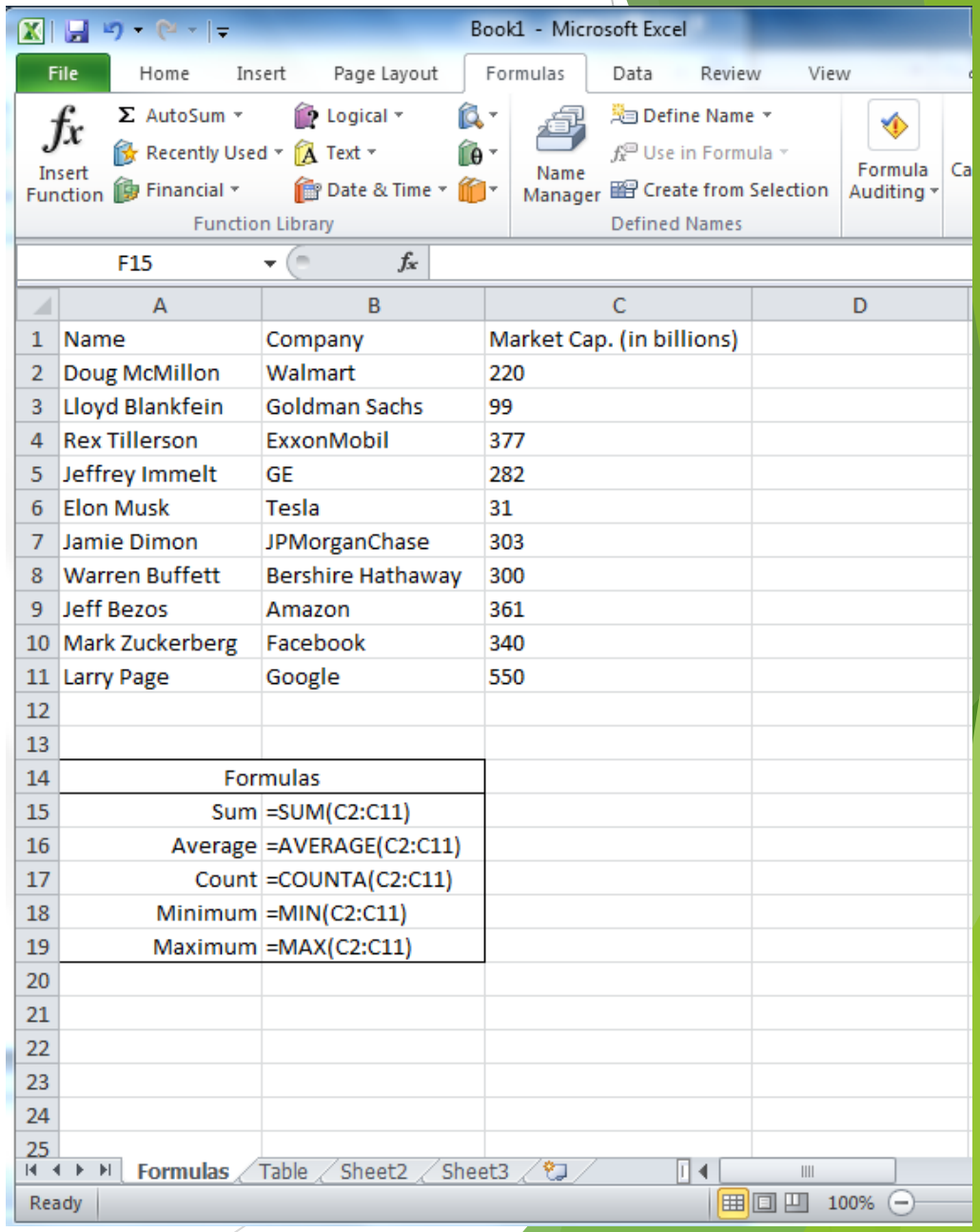
Copying Sheets

- Right click the tab that says formulas
- Select Move or Copy
- Click the box that says “Create a Copy”
- Rename this tab “Table”
- Move this tab to the right of the “Formula” tab



Formulas

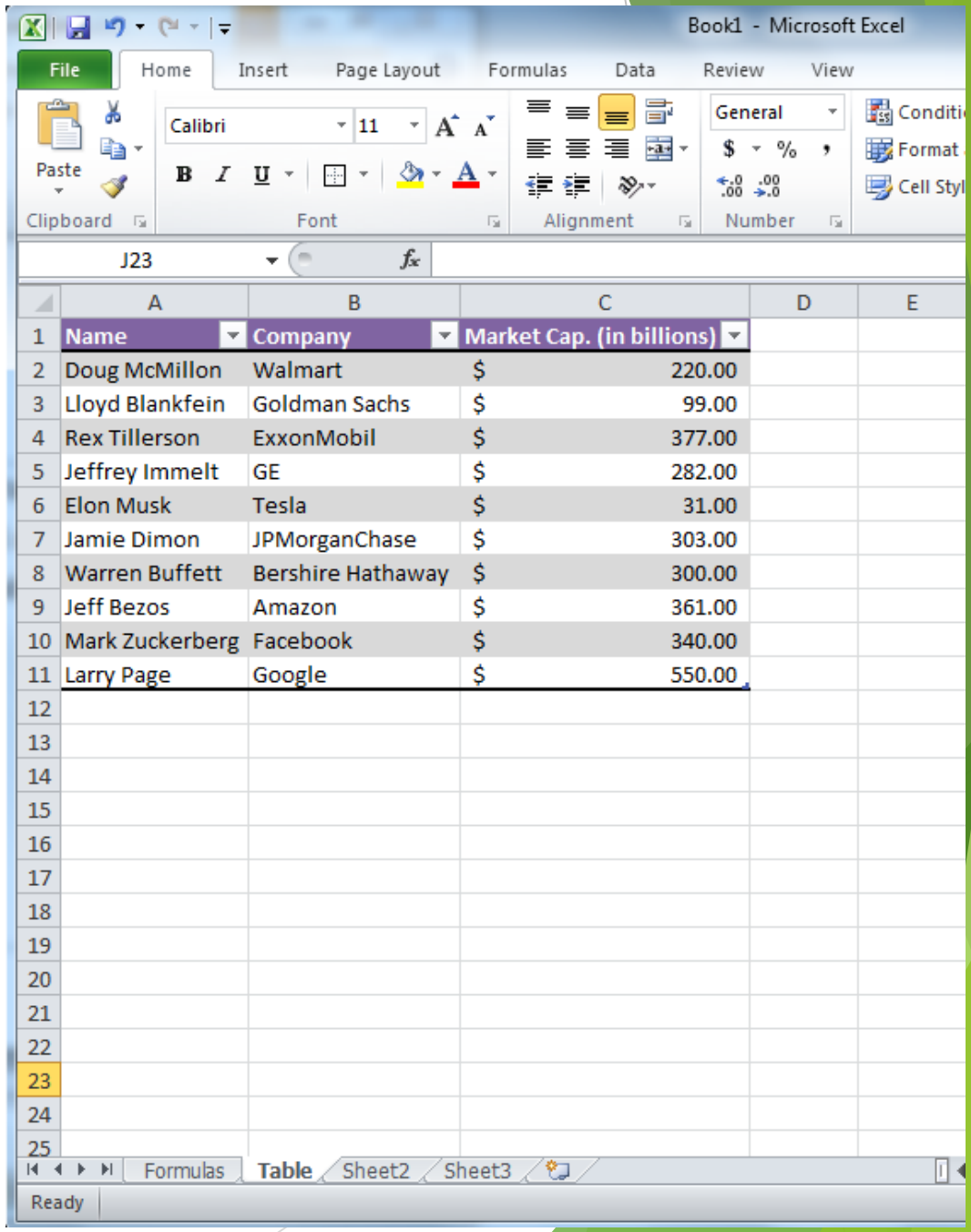
- Calculate the following:
  - Sum of the Market Capital (=sum)
  - Average of the Market Capital (=average)
  - How many CEO's are listed (=counta)
  - Find the minimum number of Capital (=min)
  - Find the maximum number of Capital (=max)



	A	B	C	D
1	Name	Company	Market Cap. (in billions)	
2	Doug McMillon	Walmart	220	
3	Lloyd Blankfein	Goldman Sachs	99	
4	Rex Tillerson	ExxonMobil	377	
5	Jeffrey Immelt	GE	282	
6	Elon Musk	Tesla	31	
7	Jamie Dimon	JPMorganChase	303	
8	Warren Buffett	Bershire Hathaway	300	
9	Jeff Bezos	Amazon	361	
10	Mark Zuckerberg	Facebook	340	
11	Larry Page	Google	550	
12				
13				
14	Formulas			
15	Sum	=SUM(C2:C11)		
16	Average	=AVERAGE(C2:C11)		
17	Count	=COUNTA(C2:C11)		
18	Minimum	=MIN(C2:C11)		
19	Maximum	=MAX(C2:C11)		
20				
21				
22				
23				
24				
25				

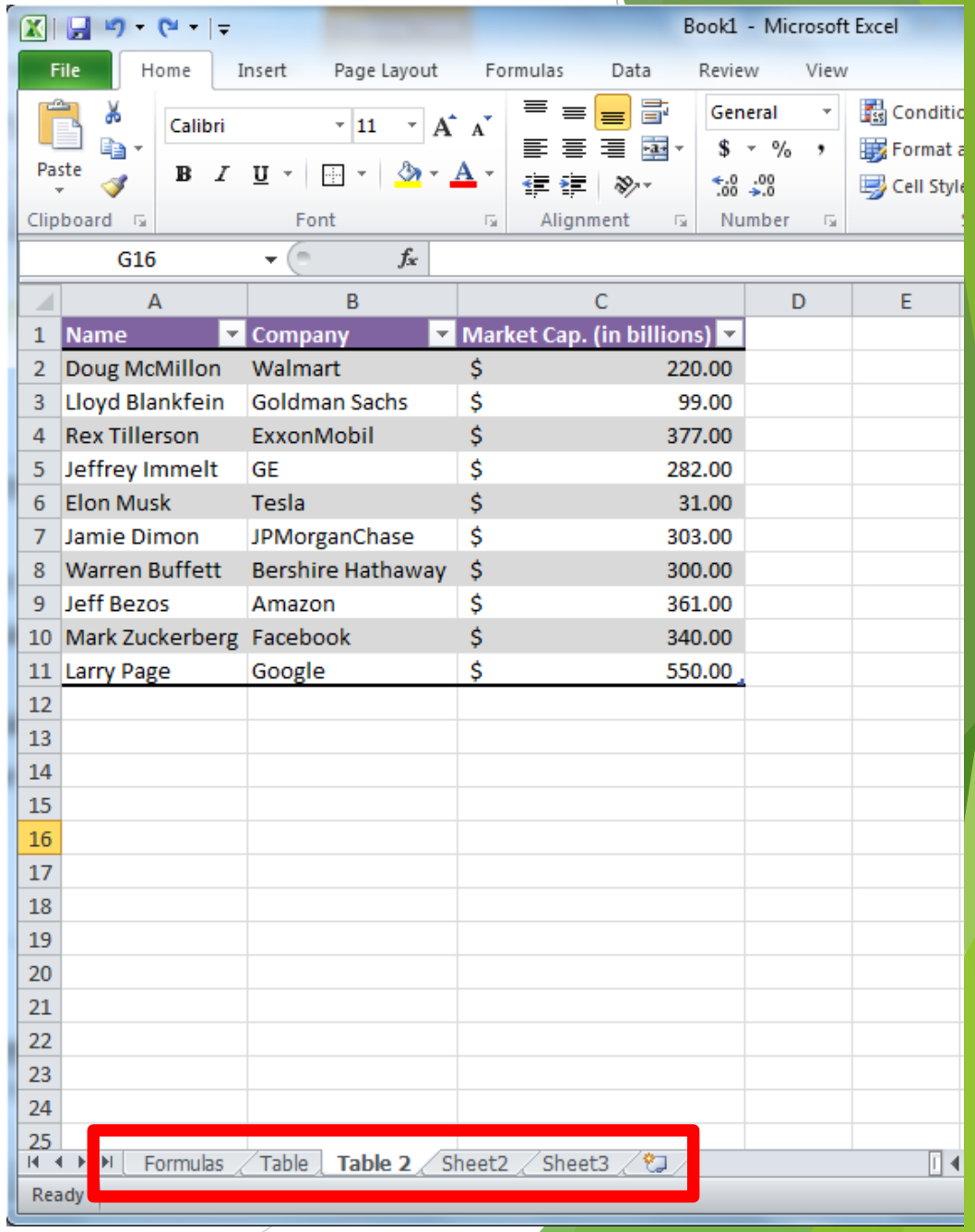
Table

- Switch over to the Table tab
- Select cells A1 to C11 (all of the data)
- Format the data into a table
  - Insert/Table/OK
- Choose any table style



Copying Sheets

- Right click the tab that says Table
- Select Move or Copy
- Click the box that says “Create a Copy”
- Rename this tab “Table 2”
- Move this tab to the right of the “Table” tab



Sort & Filter

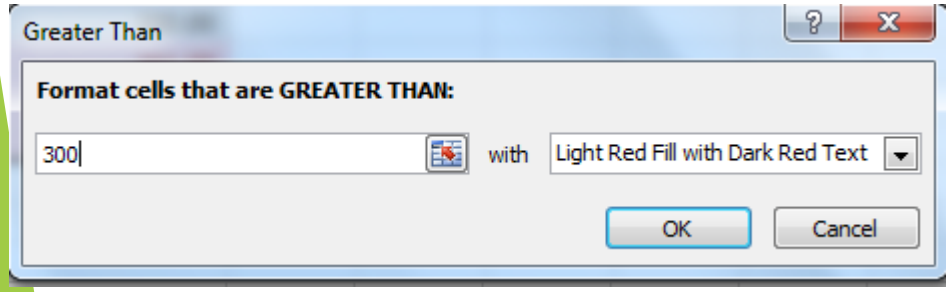
- Select the “Table” tab
- Filter the table in alphabetic order by Name
  - Click the down arrow in Cell A1
  - Choose “Sort A to Z”
- Filter the table from largest to smallest by Market Cap. Amount
  - Click the down arrow in Cell C1
  - Choose “Sort Largest to Smallest”

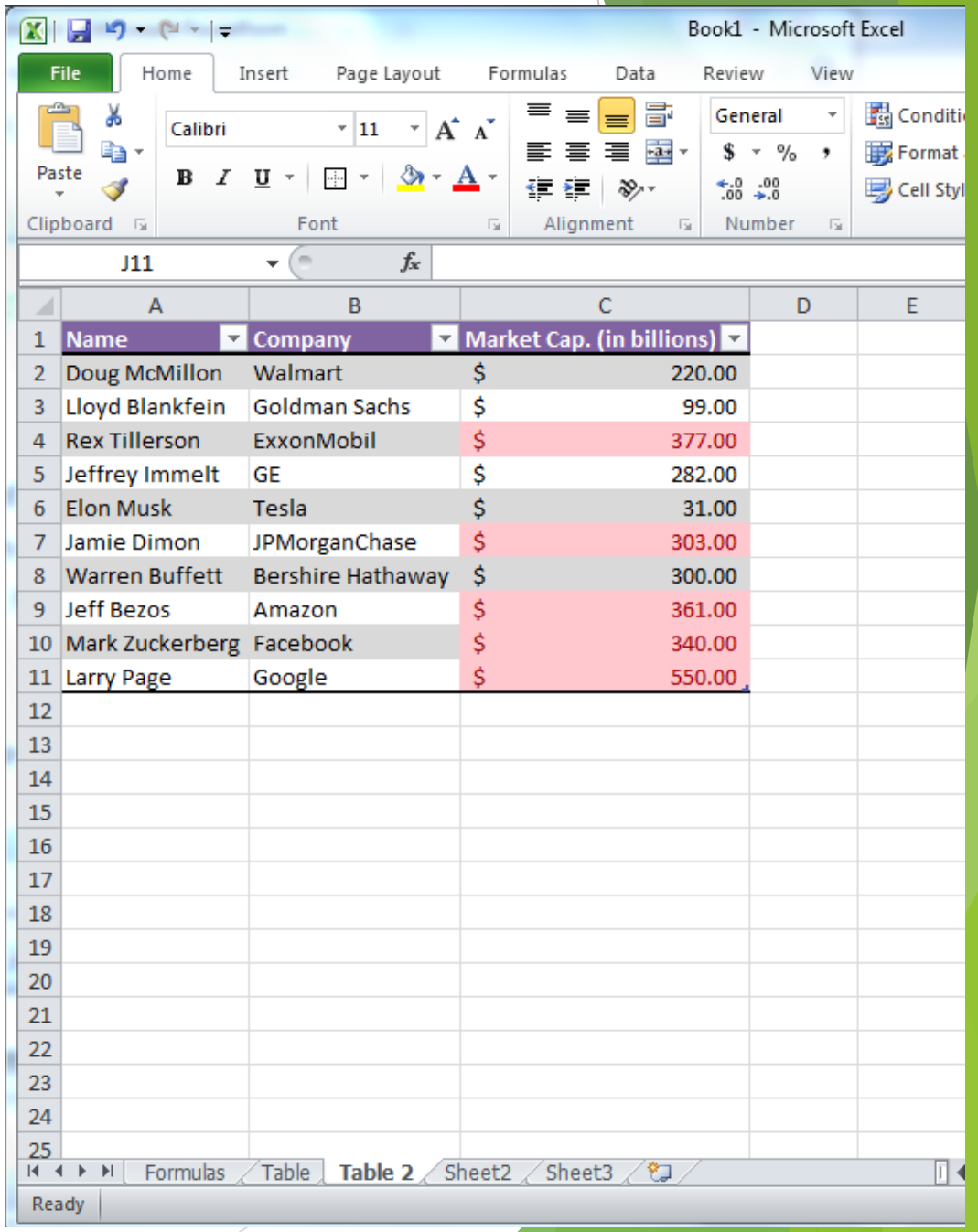
	A	B	C
1	Name	Company	Market Cap. (in billions)
2	Doug McMillon	Walmart	$ 220.00
3	Elon Musk	Tesla	$ 31.00
4	Jamie Dimon	JPMorganChase	$ 303.00
5	Jeff Bezos	Amazon	$ 361.00
6	Jeffrey Immelt	GE	$ 282.00
7	Larry Page	Google	$ 550.00
8	Lloyd Blankfein	Goldman Sachs	$ 99.00
9	Mark Zuckerberg	Facebook	$ 340.00
10	Rex Tillerson	ExxonMobil	$ 377.00
11	Warren Buffett	Bershire Hathaway	$ 300.00

	A	B	C
1	Name	Company	Market Cap. (in billions)
2	Larry Page	Google	$ 550.00
3	Rex Tillerson	ExxonMobil	$ 377.00
4	Jeff Bezos	Amazon	$ 361.00
5	Mark Zuckerberg	Facebook	$ 340.00
6	Jamie Dimon	JPMorganChase	$ 303.00
7	Warren Buffett	Bershire Hathaway	$ 300.00
8	Jeffrey Immelt	GE	$ 282.00
9	Doug McMillon	Walmart	$ 220.00
10	Lloyd Blankfein	Goldman Sachs	$ 99.00
11	Elon Musk	Tesla	$ 31.00

Conditional Formatting

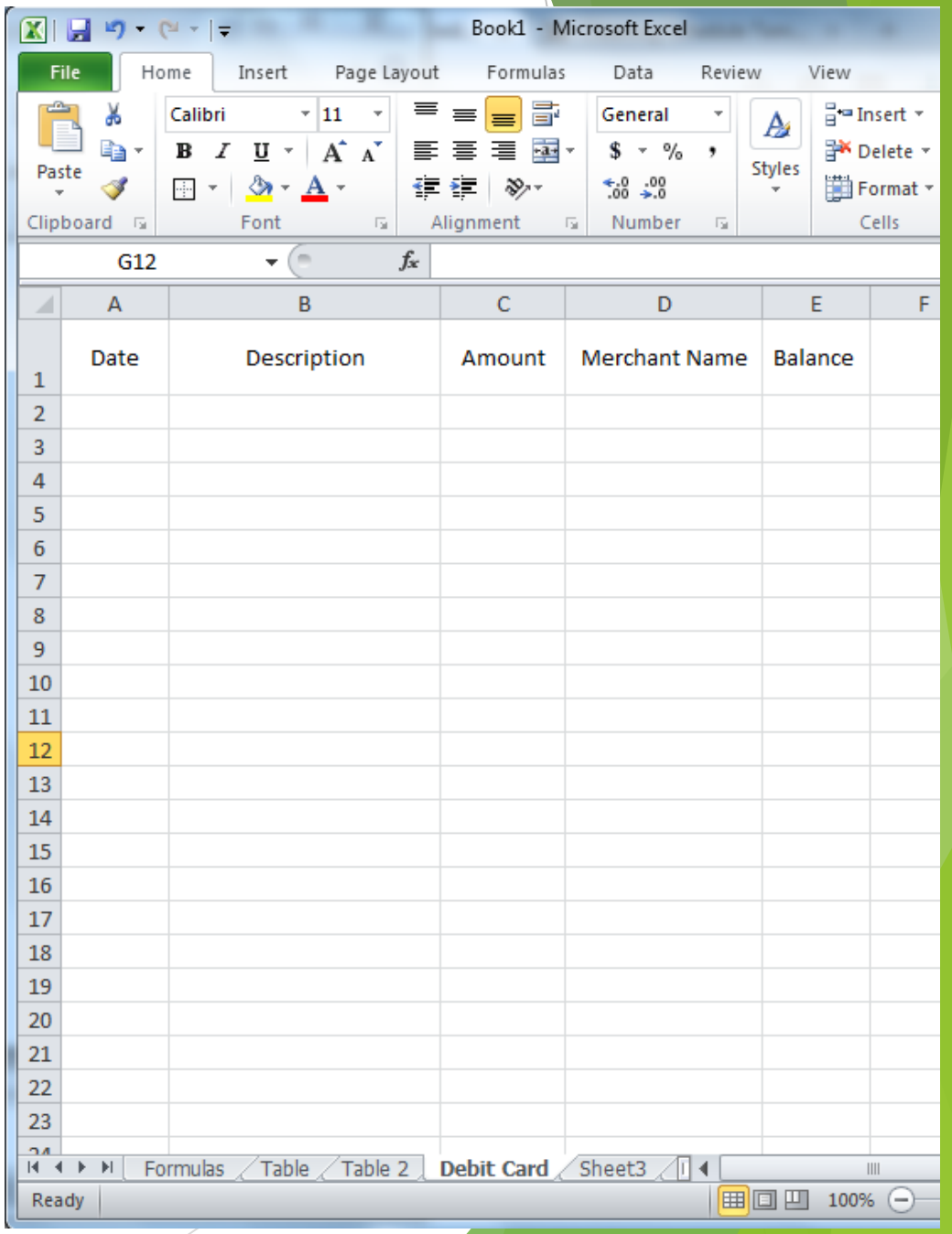
- Move to the tab named Table 2
- Select cells C2 through C11
- Select the Conditional Formatting button
  - Highlight Cell Rules
  - Greater than
  - Type 300 into the pop-up box





Creating a Debit Card Log

- Select a blank tab
- Name this tab “Debit Card”
- Type the following:
  - A1: Date
  - B1: Description
  - C1: Amount
  - D1: Merchant Name
  - E1: Balance
- Expand the rows and columns
- Center the text in the cells

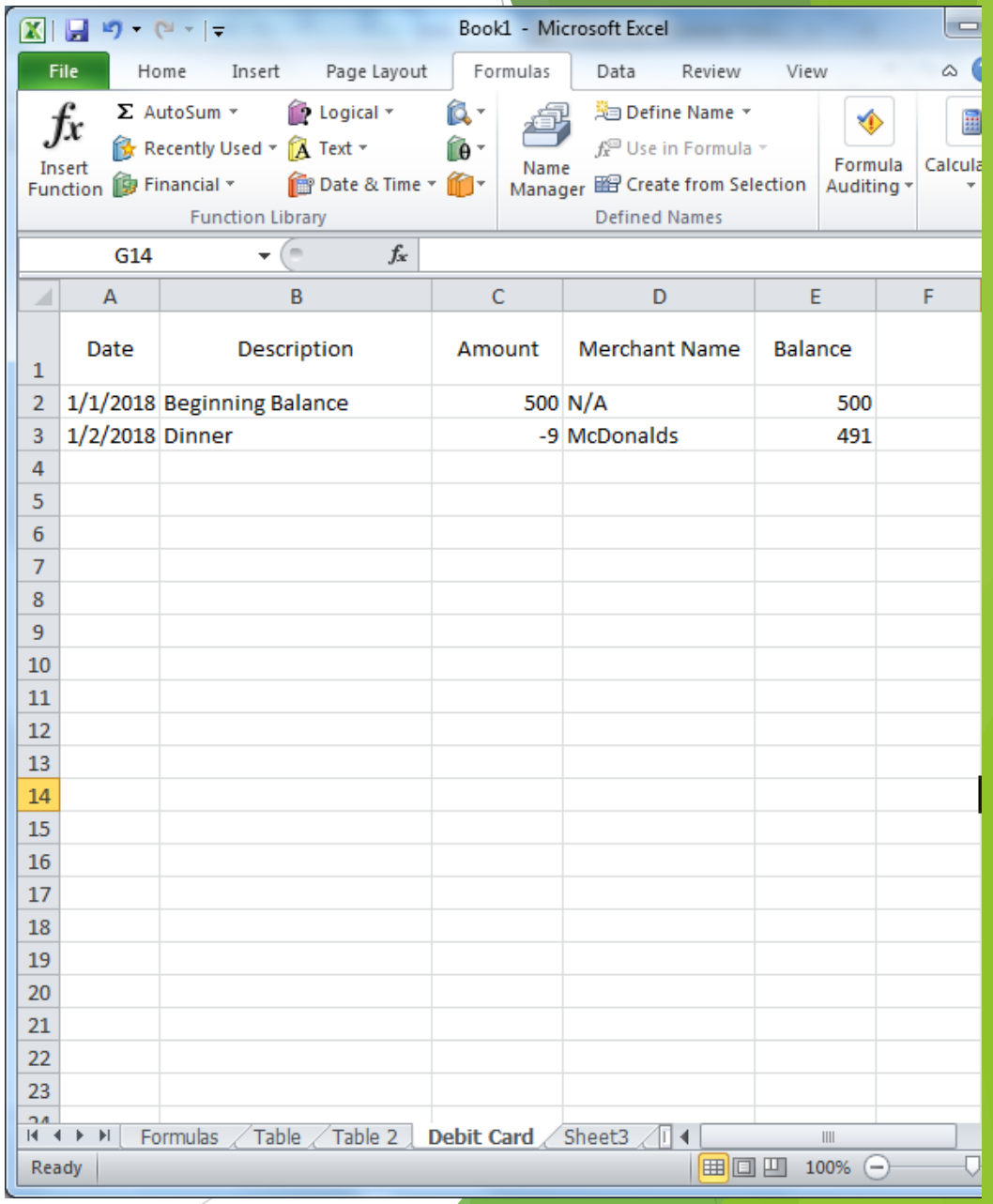


Creating a Debit Card Log

- Type in the information in the picture to the right

- Use the image below as a guide for the formulas located in cells E2 and E3

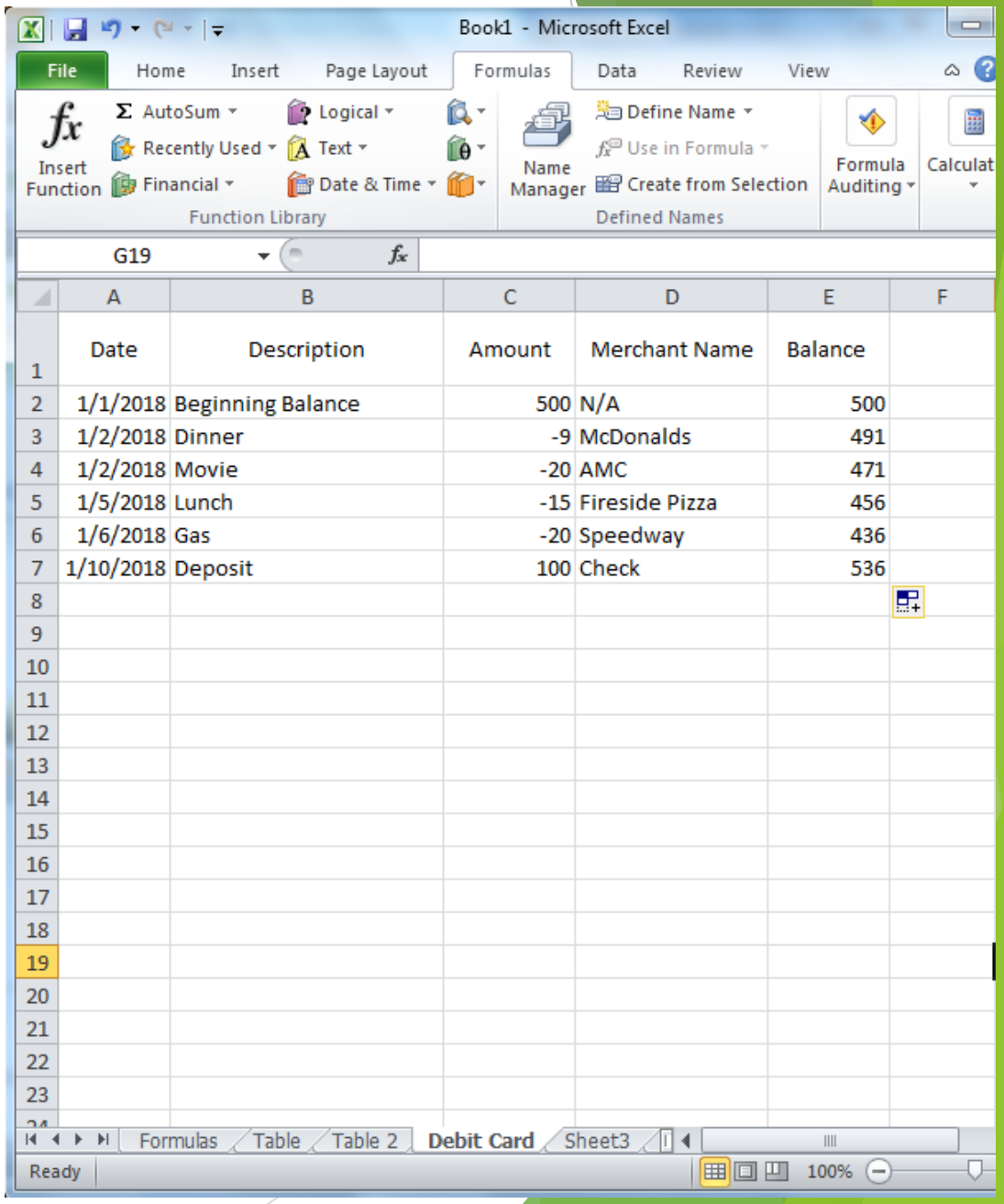
E
Balance
=C2
=E2+C3



	A	B	C	D	E	F
1	Date	Description	Amount	Merchant Name	Balance	
2	1/1/2018	Beginning Balance	500	N/A	500	
3	1/2/2018	Dinner	-9	McDonalds	491	

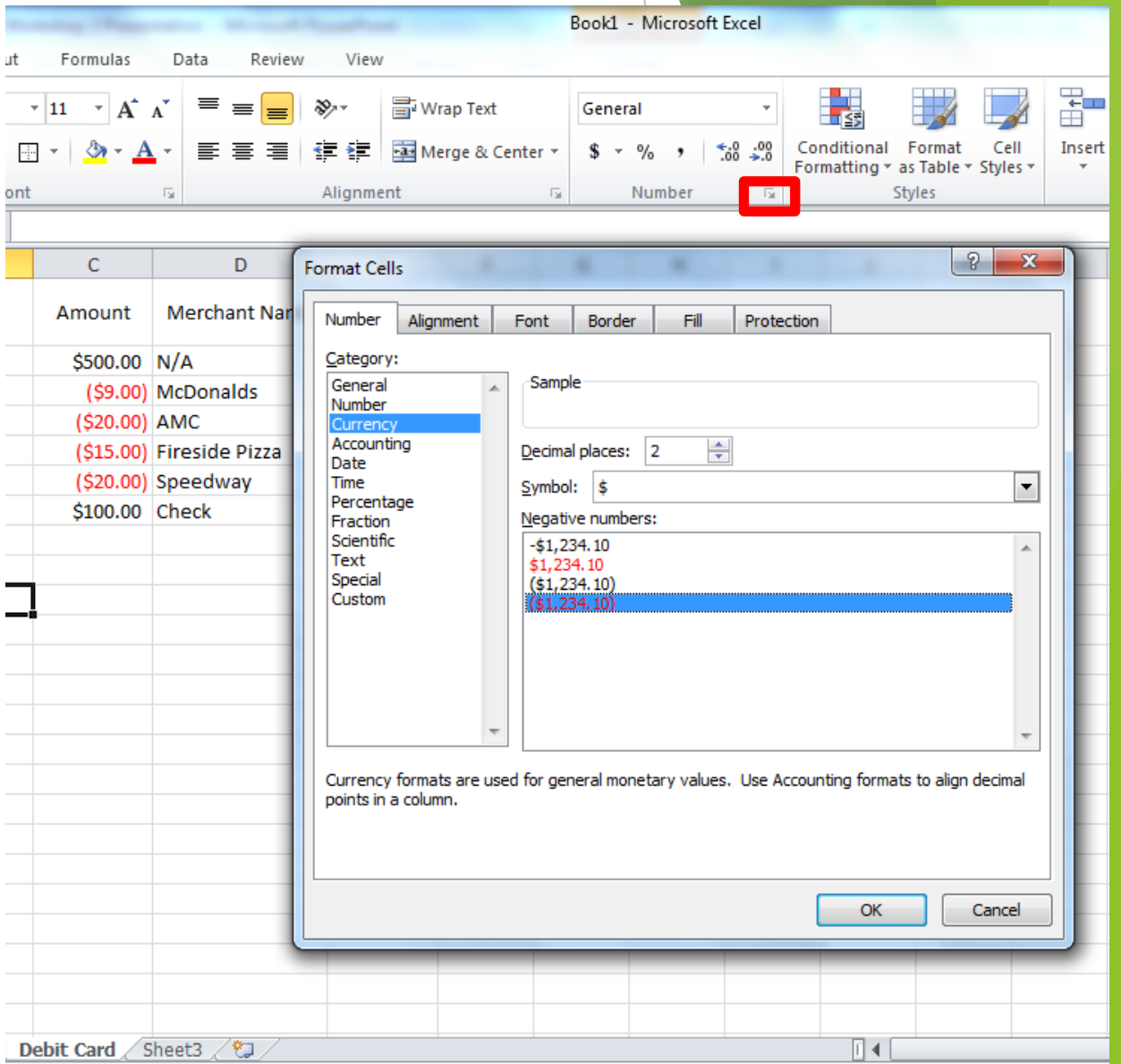
Creating a Debit Card Log

- Enter more transactions
  - Only type information into the first 4 columns
  - Feel free to use the ones to the right!
- For the Balance column, copy the formula down to avoid re-typing the formula
  - Click on cell E3
  - Click on the square at the bottom right corner
  - Drag down accordingly



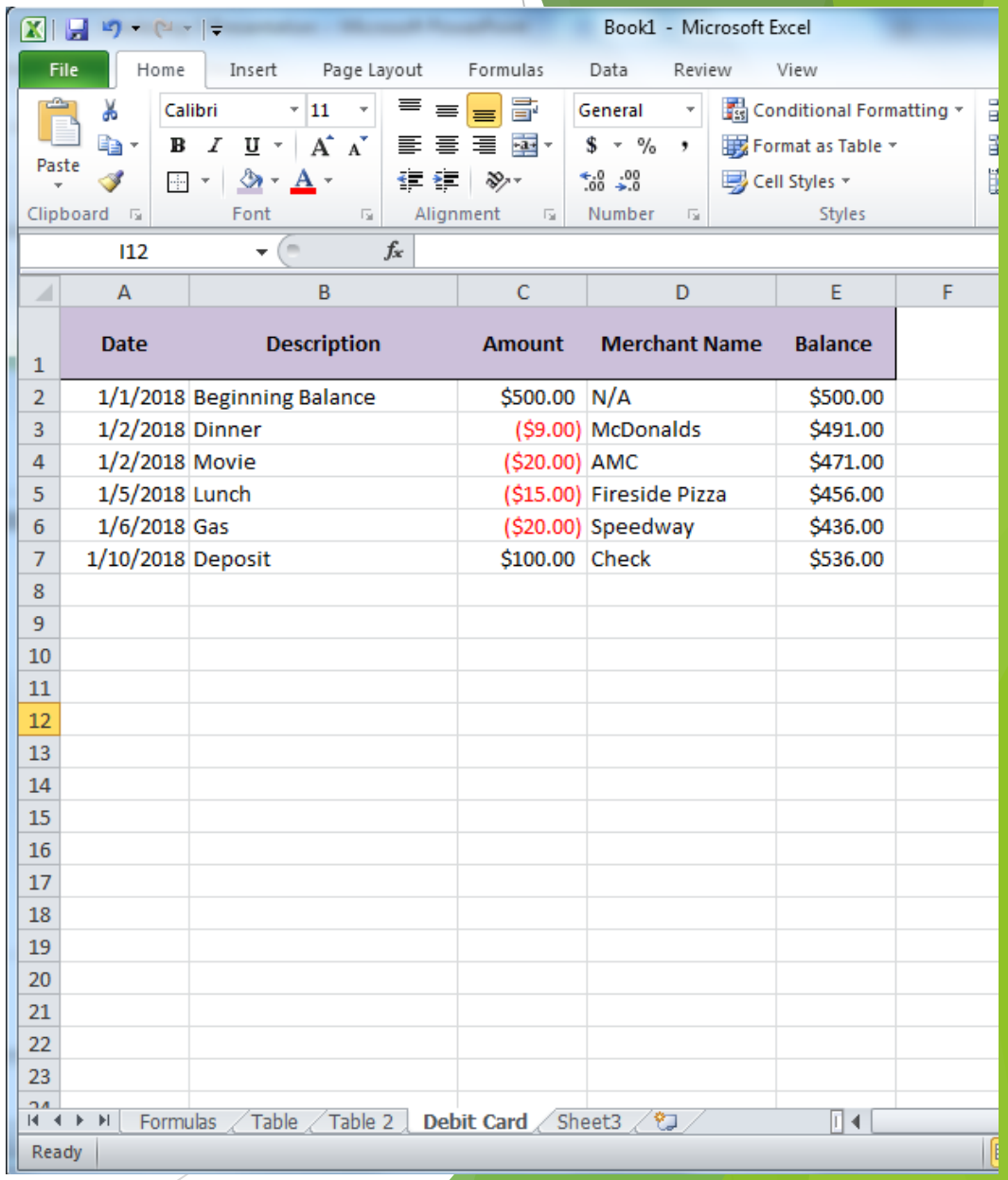
Formatting a Debit Card Log

- Select Column C
- Click the button that is outlined in red in the image to the right
- Choose Currency
- Choose the highlighted option in the image to the right
- Repeat the process with Column E



Formatting a Debit Card Log

- Make your Debit Card Log original!



	A	B	C	D	E	F
1	Date	Description	Amount	Merchant Name	Balance	
2	1/1/2018	Beginning Balance	$500.00	N/A	$500.00	
3	1/2/2018	Dinner	($9.00)	McDonalds	$491.00	
4	1/2/2018	Movie	($20.00)	AMC	$471.00	
5	1/5/2018	Lunch	($15.00)	Fireside Pizza	$456.00	
6	1/6/2018	Gas	($20.00)	Speedway	$436.00	
7	1/10/2018	Deposit	$100.00	Check	$536.00	
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

Microsoft Excel Questionnaire—End

Name: _____

Phone Number: _____

Email Address: _____

1. Was this Excel Workshop useful? Is this something you would recommend to co-workers or friends?

_____
_____
_____

2. Do you see yourself using the "How-To" guide in the future?

_____
_____
_____

3. What was the most useful Excel skill learned?

_____
_____
_____

4. Is there anything specific that was not covered in this workshop that you would have liked to learn?

_____
_____
_____

5. On a scale 1-10, how would you rate your Excel skills after attending these workshops?

1 2 3 4 5 6 7 8 9 10